

# NATIONAL FISHERMAN

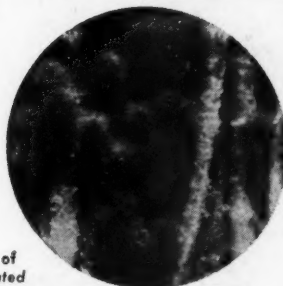
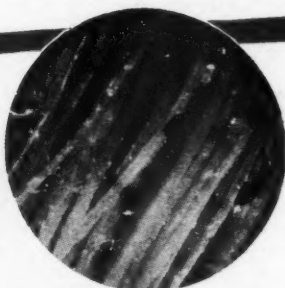
MARCH  
1955

Mar 31 '55

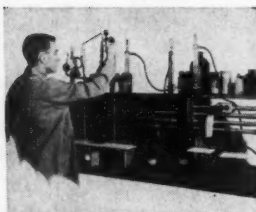
Formerly **ATLANTIC FISHERMAN**

Look for the Red, White and Blue Markers that Say:

**THIS IS COLUMBIAN MANILA...  
THE ROPE THAT ROT CAN'T HURT!**



**WHAT A DIFFERENCE!** After two weeks of incubation with virile spores of "green mold," treated Manila fibres (above) remain clean, strong, unharmed. Untreated fibres (right) are covered with strength-sapping growth of mold, making rope useless.



Columbian chemists maintain constant check on amount and strength of anti-rot substance, which is added to friction-reducing lubricant before application.



Protection begins here, as fibres enter production line. Fine spray of lubricant containing anti-rot substance saturates all fibres contained in finished rope.

Mildew, mold, fungi, rot bacteria... all go hungry when they land on Columbian Manila Rope! Columbian Anti-Rot Treatment makes the rich, strong, resilient fibres unpalatable to even the most voracious organisms of decay. They cannot feed... they cannot multiply... they cannot penetrate at any single fibre. For each one is thoroughly saturated with an amazing fungi-static substance, developed in Columbian Laboratories.

This substance preserves the original strength and resiliency of the very best Manila fibres for their full life, under the severest attacks by rot organisms.

Every foot of Columbian Manila Rope is adequately protected against decay for YOUR climate, YOUR uses, YOUR methods of handling!

**COLUMBIAN ROPE COMPANY, Auburn "The Cordage City", N.Y.**  
THE ROPE WITH THE RED, WHITE AND BLUE MARKERS



# "Safety"



The "ROY B. WHITE", owned and operated by the Baltimore and Ohio Railroad is illustrated above. This vessel is one of four tugboats completely "Safety" equipped by our New York Marine Agent, The Smith-Meeker Engineering Company.

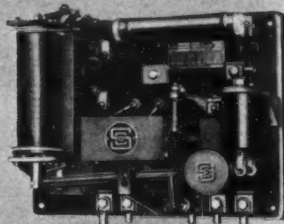
## "SAFETY" ELECTRICAL EQUIPMENT ABOARD THE "ROY B. WHITE" FEATURES...



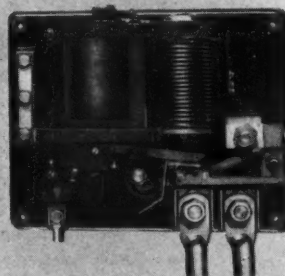
A 15kw, 115-140 volt variable speed "Safety" Generator application aboard the "Roy B. White".

- A 15 kw, 115-140 volt variable speed "Safety" generator, to provide a constant dependable source of power.
- An S-150-EA Generator Regulator which AUTOMATICALLY controls voltage and limits the current output of the generator to its maximum capacity.
- A completely automatic S-20-EA Reverse Current Relay which eliminates manually operated switches and prevents generator reversal. It AUTOMATICALLY connects the generator to or disconnects the generator from the battery and load.
- A complete "Safety" installation provides the ship owner with dependable service and low-cost maintenance over a period of many years.

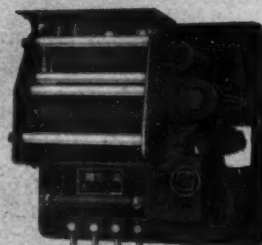
## SAFETY MARINE PRODUCTS INCLUDE:



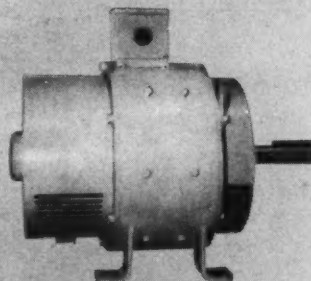
"Safety" Generator Regulators



"Safety" Reverse Current Relays



"Safety" Load Regulators



"Safety" Generators . . . ranging in capacity from 5kw to 30kw, variable and constant speed.

"Safety" Motor Alternators . . . available from 300 watts to 7kw (not illustrated).

# THE SAFETY CAR HEATING AND LIGHTING COMPANY INC.

P. O. BOX 904

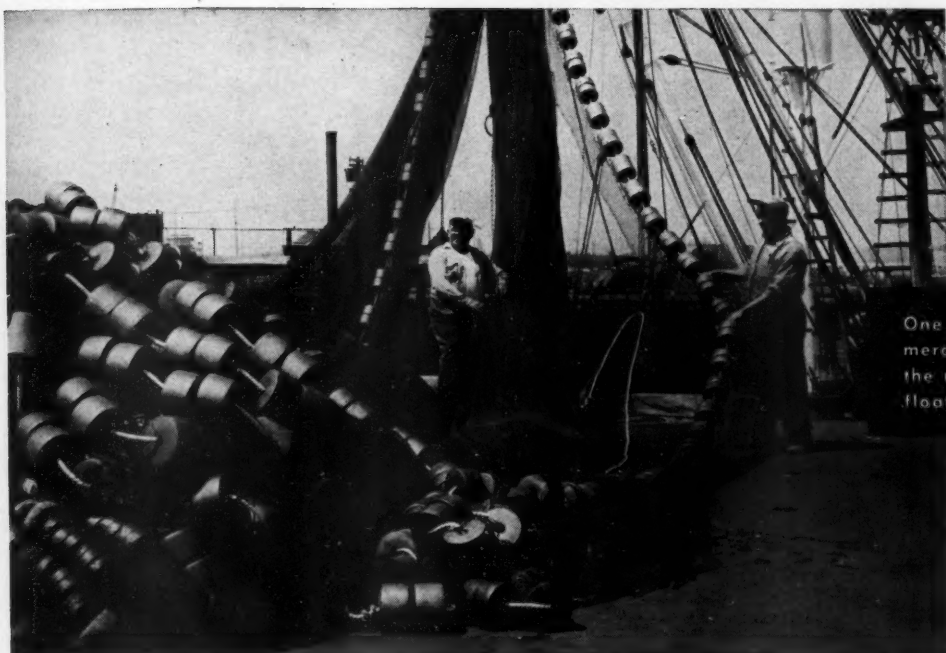
MARINE DIVISION

NEW HAVEN, CONN.

"SAFETY" MARINE PRODUCTS INCLUDE: Variable and Constant Speed Generators • Generator Regulators • Load Regulators • Reverse Current Relays • Motor Generators • Motor Alternators.

*Permanently buoyant*  
**SPONGEX SEINE FLOATS**

*outperform and  
outlast cork!*



One of the many commercial rigs now using the new Spongex seine floats.

The Spongex float is the modern float—for the modern fishing operation.

This new plastic float is lighter, tougher and more buoyant than cork. Since it won't absorb water, oil or gasoline, there's no drying problem. Its smooth surface resists sea growths and prevents net and line

fouling. Replacements are at a minimum, since the Spongex float will not rot, crumble or shatter.

Join the growing number of fishermen now taking advantage of the new Spongex seine floats. Check with your supplier or write B. F. Goodrich Sponge Products Division, 143 Derby Place, Shelton, Connecticut.



Twelve different float sizes ranging from 3" x 1½" to 6" x 7½".

**SPONGEX**

SEINE FLOATS

by

**B. F. Goodrich**  
Sponge Products Division





**THIS TEAM  
Works!**

#### 1955 SEA-HORSES

SEA-HORSE 25	
Electric Starting . . . 25 hp . . .	\$525.00*
SEA-HORSE 25 . . . 25 hp . . .	430.00*
SEA-HORSE 10 . . . 10 hp . . .	310.00*
SEA-HORSE 5½ . . . 5½ hp . . .	210.00*
SEA-HORSE 3 . . . 3 hp . . .	145.00

\*Includes Mile-Master Fuel System.

Prices f.o.b. factory, subject to change. All ratings are OBC certified brake hp at 4000 rpm.



JOHNSON SEA-HORSE 10

ALL SEA-HORSES NOW HAVE  
INTERNAL SALT WATER PROTECTION.  
NO FLUSHING NECESSARY!

Fishing 120 lobster traps a day—8 hours each day—7 days a week. That's work. For Captain Burnard Bartlett of Corea, Maine, it's a typical summer season schedule. His "partner" is a **DEPENDABLE** 10 hp Johnson Sea-Horse.

More and more commercial fishermen are turning to Sea-Horses. Why? Because these "go-anywhere" motors give a boat incomparable maneuverability. They're fast—powerful—smooth. They're pace setters in modern outboard features and developments. They're economical in all respects. *But*, the big reason is Johnson **DEPENDABILITY**—you can trust these motors . . . See the man who knows boats and motors best, your Johnson Dealer. Let him show you how a Sea-Horse can work for you. Look for his name under "Outboard Motors" in your classified phone directory.

**FREE!** Catalog, which fully describes the 5 great Sea-Horses for 1955—from 3 hp to 25 hp, including the Electric Starting Sea-Horse 25. Just send a post card to  
**JOHNSON MOTORS, 6100 Pershing Rd., Waukegan, Illinois**  
A DIVISION OF OUTBOARD MARINE & MANUFACTURING COMPANY  
In Canada: Manufactured by Johnson Motors, Peterborough

**Johnson**  
 **SEA-HORSES**

**FOR DEPENDABILITY**



## In this issue

Salt-water Ice for Preserving Fish Aboard Ship	15
Hydraulic Dredge Effective for Soft-Clamming in Maryland	16
Catching Great Lakes Smelt Through the Ice	17
How the Industry Views Fishing Restrictions	18
Treasure Hunting off Haiti by "Sea Diver"	19
Effects of Temperature, Tide, Wind on Salmon Trolling	20
Fluid Drives Improve Trawl Winch Operation	30

## NEWS REPORTS

Boston	50
California	27
Connecticut	51
Florida	23
Georgia	25
Gloucester	47
Great Lakes	34
Long Island	31
Louisiana	22
Maine	21
Maryland	25
Massachusetts	39, 47, 50
Michigan	34
Mississippi	49
New Bedford	39
New Jersey	49
North Carolina	22
Oregon	26
Pacific Coast	26-29
Provincetown	48
Rhode Island	38
South Carolina	38
Texas	24
Virginia	36
Washington	28
Wisconsin	34

## REGULAR DEPARTMENTS

Fishery Progress	9
Equipment and Supply News	40
Boat Catches for February	44
Where-to-Buy Directory	52
Foreign Bailings	53
Classified Advertising	54

Yearly subscription rates: United States, \$3; Canada, \$4; Foreign, \$5. Single copies, 35¢.

Accepted as Controlled Circulation publication at Manchester, N. H.

# NATIONAL FISHERMAN

Formerly **ATLANTIC FISHERMAN**

Serving the Commercial Fishing Industry of the United States

## Fishing Boat Inspection Program Needed

The recent action of the New Bedford (Mass.) Seafood Producers Association, in authorizing its president to create a three-member committee to set up a code of inspection for member boats in an effort to reduce insurance costs, is a laudable move.

It is expected that this "self-policing" program, stimulated by progressive leaders in the industry, may eventually include licensing of masters and other personnel, and safety education. The adoption of recognized standards of inspection would undoubtedly result in special insurance premium consideration being given to fishing boats that meet the necessary qualifications.

Owners of the better vessels long have advocated thorough inspection and survey, and insurance companies are showing increased interest in the condition of fishing craft.

It is noteworthy to find that the Board of Steamship Inspection in Canada has made proposals for regulations on the construction and inspection of fishing vessels. A meeting with industry representatives was held last month, and comments from them will be considered before the Board finalizes its regulations. Current discussions are confined to proposals affecting vessels of not over 80 feet in registered length, with larger craft to be considered at a later date.

At the last meeting of the Gulf and Caribbean Fisheries Institute, Jerome Sachs, director of the Insurance Staff, Bureau of Foreign Commerce, Washington, D. C., recommended inspection of fishing boats and licensing of operators. He said that boats should be subject to official stand-

ards, with inspection and certification by recognized surveyors. Mr. Sachs suggested that fishing vessels comply with construction and maintenance standards relating to hull, engine installation, loading equipment, safety appliances, rescue apparatus, etc. Such a program, he believes, could be carried out by means of an industry classification system, with a Government agency accepting the industry's certificates.

Except in cases of steel vessels built to American Bureau of Shipping specifications, there are no regulations that now apply particularly to fishing boat construction in this country. In times past, bills covering construction and inspection of fishing boats have been introduced in Congress, but no action was ever taken. Some of these bills contained provisions which were too far-reaching and would have imposed undue hardship on the industry.

An officially recognized plan of fishing boat inspection is needed, and it would be highly desirable to have it handled through industry self-regulation. Such a plan should be based on a fair code of rules, formulated after consultation with naval architects, boat builders and equipment manufacturers, who are familiar with the problems of fishing boat operation.

To accomplish its objective of keeping boats in seaworthy condition and assuring maximum safety for crews, an inspection program must have the wholehearted support of fishing boat owners and operators. This can be accomplished if the provisions of inspection are considered from a practical standpoint, and are recognized to be sensible and feasible.

Published monthly by Atlantic Fisherman, Inc., Goffstown, New Hampshire

P. G. LAMSON  
President

GARDNER LAMSON  
Publisher and Editor

A. E. BROWN  
Managing Editor



Member: National Business Publications and  
Business Publications Audit of Circulation



Advertising Representatives: Kennedy Associates, 60 East 42nd Street, New York 17, N. Y.  
Murray Bothwell, 234 E. Colorado St., Pasadena 1, Cal.; Wm. C. Walters, Box 619, Atlanta 1, Ga.

GM DIESEL  
CASE HISTORY NO. 9907-32

**BOAT AND OWNER:** 38-foot seiner "FISHERMAN" owned by Captain Michele Trama, San Pedro, California.

**INSTALLATION:** 87 horsepower GM "4-51" Marine Diesel replaced 115-horsepower gasoline engine—swings 32" x 24" screw through 3:1 reduction.

**PERFORMANCE:** Fuel bills dropped from \$140 to \$60 per month and speed increased after Captain Trama switched from gasoline to GM Diesel power. He also reports easier starting and better maneuverability.



## Saves \$80 a month in fuel

Since he switched from Gasoline to GM DIESEL POWER

Fuel bills dropped 57% when Captain Trama switched from gasoline to General Motors Diesel power but fuel savings are only part of the story. He also comes in faster under load and cuts 30 minutes off his regular 24-mile run to Catalina Island.

With his General Motors Diesel, Captain Trama has no spark ignition problems—gets push-button starts—travels faster since his GM Diesel *delivers more propulsion power for cruising*. Maintenance costs less, too, because the GM "4-51" has no valves, no rotating parts in the governor, no gear or chain drives for the oil pump. And 2-cycle operation with power on every piston downstroke gives better maneuvera-

bility, quicker response to controls, smoother cruising.

If your present boat is gasoline powered, it will pay you to investigate this new General Motors "4-51" Diesel. It will quickly pay for itself in fuel savings alone. It's about the same size and weight as gasoline engines of comparable power and speed—brings the safety, dependability and economy of Diesel power to a whole new group of fishermen for the first time. For more details call your GM Marine Diesel distributor or write:

**DETROIT DIESEL ENGINE DIVISION**

GENERAL MOTORS • DETROIT 28, MICHIGAN

Single Engines . . . 30 to 300 h.p. Multiple Units . . . Up to 893 h.p.

Sales, Factory-Engineered Parts and Authorized Service through distributors and dealers in all important marine locations. SEE your local Telephone Classified Directory or write, wire or phone for name of nearest Distributor.

# FACTS ABOUT Exide®

## IRONCLAD® MARINE BATTERIES



### FISH OR SEA MONSTER? DETECTION GEAR POWERED BY EXIDE-IRONCLADS HELPS FIND OUT

FISHING BOATS USE DEPTH FINDERS TO LOCATE SCHOOLS OF FISH HIDDEN BENEATH THE SURFACE OF THE SEA. THIS EQUIPMENT IS EXIDE-POWERED AS IS OTHER ELECTRONIC GEAR SUCH AS RADIO TELEPHONES AND RADAR. EXIDE-IRONCLADS ARE ALSO USED TO START ENGINES AND FURNISH AUXILIARY LIGHT AND POWER. THEIR DEPENDABLE OPERATION IS VITAL TO SAFETY AT SEA.

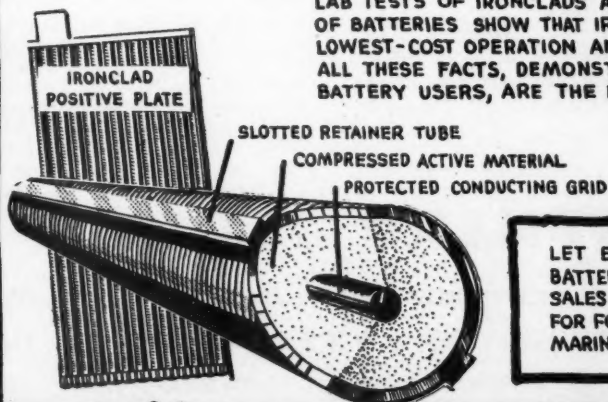
### BATTERIES ARE WORKED TO DEATH BY EXIDE ENGINEERS TO LEARN SECRETS OF LONGER LIFE

SINCE 1910, RESEARCHERS HAVE GREATLY IMPROVED EXIDE-IRONCLAD PERFORMANCE AND USEFUL WORKING LIFE, BUT THE BASIC IRONCLAD PRINCIPLE OF TUBULAR CONSTRUCTION REMAINS THE SAME.



LAB TESTS OF IRONCLADS AGAINST CONVENTIONAL TYPES OF BATTERIES SHOW THAT IRONCLADS GIVE BETTER PERFORMANCE... LOWEST-COST OPERATION AND EXCEPTIONALLY LONG LIFE. ALL THESE FACTS, DEMONSTRATED BY THOUSANDS OF BATTERY USERS, ARE THE REASON WHY

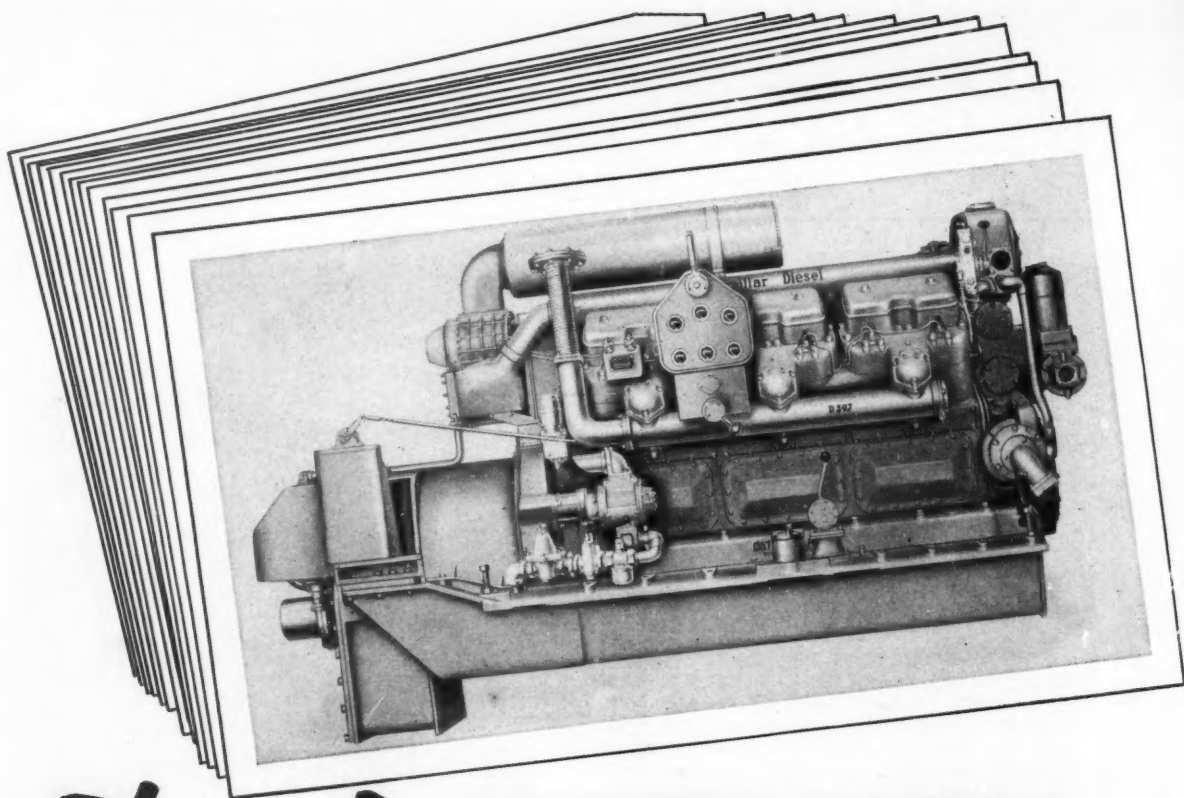
**EXIDE-IRONCLADS**  
ARE YOUR BEST POWER BUY  
AT ANY PRICE!



LET EXIDE HELP SOLVE YOUR MARINE BATTERY PROBLEMS. ① CALL YOUR EXIDE SALES ENGINEER FOR FULL DETAILS. ② WRITE FOR FORM 5190-ALL ABOUT IRONCLADS FOR MARINE SERVICE, WITH SPECIFICATION SHEETS.

**Exide INDUSTRIAL DIVISION**, The Electric Storage Battery Company, Philadelphia 2, Pa.





# Now!

## THE 10 MOST POWERFUL MARINE ENGINES IN CATERPILLAR HISTORY!

### CONTINUOUS RATINGS OF CAT MARINE ENGINES

D397	450 HP
D386	360 HP
D375	300 HP
D364	235 HP
D337	170 HP
D326	121 HP
D13000	150 HP
D8800	82 HP
D318	80 HP
D315	53 HP

**NOW**... at H. O. Penn Machinery Co. we've the most powerful CAT® Marine Engines ever! Here's that extra margin of power you've wanted to handle bigger loads faster... to help you accomplish more. Here's more horsepower per dollar.

**NOW**... see these 10 dependable marine engines from 53 to 450 CONTINUOUS HORSEPOWER at our headquarters. Whatever your horsepower needs in this range, YES, WE HAVE IT! These new, more powerful engines bring you the same high quality—same long-lived perform-

ance—same famous Caterpillar fuel economy you expect from Cat machines, PLUS NEW CONTINUOUS HORSEPOWER RATINGS! These are honest, conservative ratings complete with raw water pump and basic equipment.

**NOW**... H. O. Penn Machinery Co. marine power specialists will show you the many extra values you'll realize from owning a new Cat. We'll gladly give you all the details. Call us for the engine that matches your boat's needs.

## CATERPILLAR® MARINE POWER

YOUR CATERPILLAR DEALERS ARE  
H. O. PENN MACHINERY CO. PERKINS-MILTON CO. INC.

INCORPORATED

140th St. & East River, New York, N. Y.  
1561 Stewart Ave., Westbury, L. I.  
Dutchess Turnpike, Poughkeepsie, N. Y.  
136 Day St., Newington, Conn.  
Route 17, Tuxedo Park, N. Y.

376 Dorchester Ave.  
Boston, Mass.

4 Water Street  
Fairhaven, Mass.

# FISHERY PROGRESS

Economic • Legislative • Technical

**Pack of canned fish and shellfish** in United States and Alaska totaled about 860 million pounds in 1954, as compared with 792 million in 1953, according to Secretary of Interior Douglas McKay. The 1954 pack was third largest in history, exceeded only by 1941 and 1950 outputs of 881 million and 965 million pounds, respectively.

Largest individual increase was in Pacific sardine pack, which came to 60 million pounds, as against 3 million in 1953. The 57-million-pound gain was due to a return of this species to southern California waters after a virtual absence in recent years. Production of canned sardines in Maine amounted to about 61 million pounds, for an increase of eight percent over previous year.

Output of canned tuna set an all-time record of 209 million pounds in 1954, as compared with 189 million pounds in previous year. The 20-million-pound increase was due to larger domestic catch and heavier imports of frozen tuna from Japan and Peru.

Canned salmon showed 1954 pack of 194 million pounds, for gain of about three percent over 1953. Bolstering the output were a 23-million-pound pack of sockeye salmon in Puget Sound area—the largest since 1913—and a 28-million-pound pack of chum salmon southeastern Alaska (as against 20 million pounds in 1953).

Canned oysters showed about same pack as in 1953, when approximately 6,800,000 pounds were produced. Reports from Pacific Northwest revealed heavy canning of oyster stew in that section, with 1954 pack of more than 4,800,000 pounds, as compared with 3,400,000 pounds in previous year.

Domestic production of groundfish and ocean perch fillets in 1954 totaled 126 million pounds, as compared with 112 million in 1953. Imports of groundfish fillets were 135,700,000 pounds, making 1954 first year in history that imports have exceeded domestic production.

Preliminary figures on fishery by-products show that fish meal and fish oil yields in 1954 were about same as in 1953, when 239,000 tons of meal and 20,300,000 gallons of oil were produced. As in 1953, menhaden accounted for more than 70 percent of the meal and 85 percent of the oil.

American cold storage plants froze 303 million pounds of fish and shellfish in 1954, for an increase of 27,600,000 pounds over previous year.

**Scope of shellfish certification program** may be limited by Public Health Service's Shellfish Sanitation Section to exclude prepared shellfish products. Need for such action stems from personnel and financial limitations of both the States and the Service, from statutory responsibilities of other governmental food control agencies, and from lack of epidemiological evidence indicating need for extending certification to such prepared shellfish products.

The limitation plan, which will not be adopted until Service has been advised that it is acceptable to majority of States, is as follows:

A. Redefine shellfish as "All fresh or frozen oysters, clams, or mussels either shucked or in the shell."

B. Limit the certification program to the fresh and frozen product and not include processed shellfish foods such as frozen oyster stew, frozen clam chowder, frozen clam cakes, seafood dinners containing oysters, crab cakes, scallops, fish fillets, and other similar prepared shellfish products, except that frozen breaded shellfish may be included in the certification program at the option of each State.

C. Make no further extension of the shellfish certification program to encompass other processed shellfish products unless there is sufficient public-health justification for such an extension.

D. Urge each State to require that only certified shellfish be used in prepared shellfish products.

**Groundfish fillet import quota** at reduced duty of 1½¢ per pound is 35,432,624 pounds for calendar year 1955, or around 4% higher than in previous year. The increase was based on higher fillet consumption in United States during the three immediately preceding years.

Divided into quarterly quotas, this means that 8,858,156 pounds of fresh and frozen fillets of cod, haddock, hake, pollock, cusk and ocean perch may be imported at 1½¢ rate during each quarter. Groundfish fillet imports over quarterly quota will be dutiable at rate of 2½¢ per pound.

**Special Fisheries Marketing Bulletin** has been issued by Department of Interior to promote use of fish and shellfish during Lenten season, which opened February 23. The Bulletin points out that supplies of fishery products will be plentiful during the period, and gives two Government-tested fish recipes.

Department of Agriculture lists as plentiful foods during February and March frozen haddock fillets, frozen halibut, canned tuna, and fresh and frozen shrimp. Other species of fish and shellfish in plentiful supply will be listed from time to time.

**Domestic production of fish sticks**, new breaded food item, totaled 50 million pounds in 1954, as compared with 7½ million in 1953. Acclaimed as revitalizer of commercial fishing industry, fish sticks brought gross income of nearly \$40 million to retailers in 1954, with proportionate revenue to all segments of industry concerned with production, distribution, and marketing of this commodity.

Monthly production of fish sticks reached high of 5½ million pounds in October, 1954. This compares with 1½ million pounds in same month of previous year, when volume output first began. Production for last quarter of 1954 amounted to 15½ million pounds, as against 5½ million pounds for same quarter of 1953. First, second, and third quarters of 1954 showed outputs of 10 million pounds, 12 million pounds, and 12½ million pounds, respectively.

Fish sticks are uniformly-shaped pieces of fish dipped in batter, breaded, frozen, and distributed in consumer-size packages. Similar to french-fried potatoes in appearance, they are marketed in precooked and uncooked form. Production of precooked sticks in 1954 totaled 44 million pounds, and uncooked sticks showed 1954 output of 6 million pounds.

Both imported and domestic fish go into production of fish sticks. Cod is principal species, but haddock, ocean perch, and few others also are used.

**U. S. shrimp imports** from Mexico during 1954 were 34.9 million pounds, against 36.8 million for same period of previous year. In December, these imports amounted to 3.5 million pounds, as compared to 5.1 million for same month of 1953.

Imports of all shrimp (fresh, frozen, and canned) from all countries for 1954 were 41.5 million pounds, against 43.1 million for previous year. In December, 1954, these imports totaled 4.2 million pounds, compared with 5.6 million in December, 1953.

**Fish stick grade standards** have been requested by National Fisheries Institute's Fish Stick Committee. This group has asked Fish and Wildlife Service to (1) issue official voluntary standards based on "Proposed Standards for Grades of Frozen Fried Fish Sticks", as developed by National Fisheries Institute and (2) make available a grading and inspection service for voluntary use by industry.



**"We go from  
full ahead  
to full reverse**

**ALMOST AS FAST AS I CAN  
MOVE THE CONTROLS"**

That's Captain Celestin Radil, skipper of the *Ivana*, talking. "When you're fishing for herring," he points out, "quick maneuverability is important."

He gets dependable power for such fast action with an Atlas Model 45 Diesel, rated 300 hp at 750 rpm. Turning the *Ivana's* 62-inch propeller, this modern direct-reversing Atlas provides a cruising speed of 10 knots, and a top speed of 11 knots.

But Captain Radil isn't the only member of his family satisfied with Atlas power. His father, John Radil, captains the Atlas-powered *Walter M.*, and his brother Albert is the skipper of the *Theresa*, a seiner propelled by a 200 hp Atlas. During five weeks of sockeye salmon fishing last year, the *Theresa* had a catch of 50,000—making it the "high boat" for the British Columbia fishing industry. In the same

period, the *Ivana* brought in 30,000 fish.

Just as Atlas Diesel power is paying off for the Radil "family of Captains," it can pay off for you—in long life, fuel economy and low maintenance costs. Whether you're re-powering, or planning auxiliary power, be sure to check National's quality line for the engines to meet your needs. Just write or call the nearest office listed below for full information.



The *Ivana*, recently remodeled with modern living quarters for skipper and crew, is a 72' x 19' salmon and herring seiner.

This modern 300 hp Atlas Model 45 Diesel—of the type which powers the *Ivana*—is typical of the quality engines National provides for every marine need.

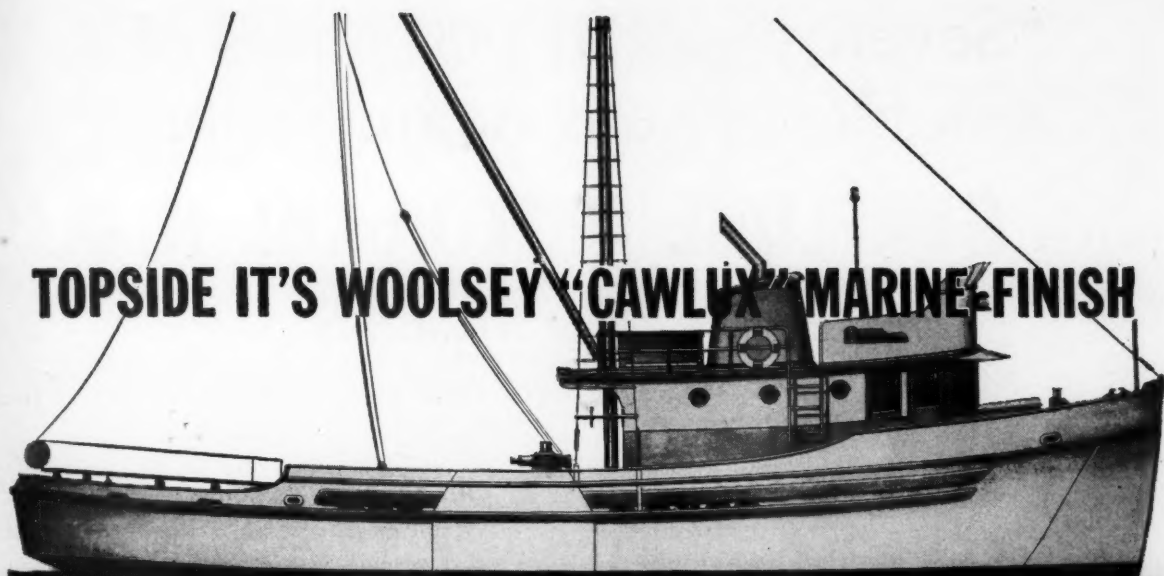


## THE NATIONAL SUPPLY COMPANY

**ENGINE DIVISION** PLANT AND GENERAL OFFICES: SPRINGFIELD, OHIO

SALES AND SERVICE POINTS: Gloucester, Massachusetts • Houston, Texas • Fort Worth, Texas • San Diego, California • Oakland, California • Terminal Island, California • Ketchikan, Alaska • Washington, D.C. • Chicago, Illinois • Portland, Oregon • Astoria, Oregon • Casper, Wyoming • St. Louis, Missouri • Halifax, Nova Scotia • Vancouver, B. C. • Park Rapids, Minnesota • New York, New York • Seattle, Washington • New Orleans, Louisiana • Pittsburgh, Pennsylvania





**TOPSIDE IT'S WOOLSEY "CAWLUX" MARINE FINISH**

**ON THE BOTTOM IT'S "TRADEWINDS" ANTI-FOULING**

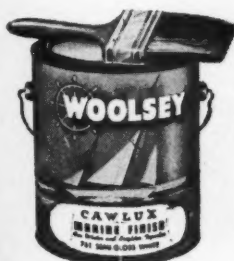
**DON'T BE PENNY-WISE**

**AND DOLLAR-FOOLISH**

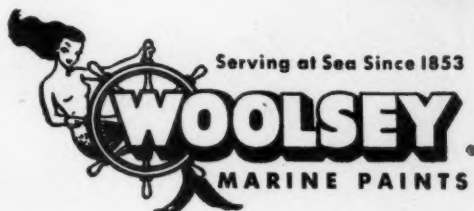
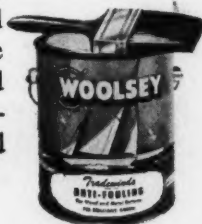
*Reduce High Cost Haul-Outs and Increase Your Profitable Hours Afloat by Using Higher Quality, Longer Lasting Woolsey Marine Paints on Your Boat*

**"CAWLUX" FACTS**—"Cawlux" Marine Finish withstands continued exposure to salt, hot sun, scrubbing, hard wear...every punishment a fishing boat must undergo...far better than ordinary paints. This is because "Cawlux" is made with a special alkyd binder that "imprisons" and protects the world's finest pigments in a tough, impermeable, flexible film. Yet "Cawlux" costs but slightly more per gallon! On the hull, trim, decks, cabin, spars, and other topside surfaces, "Cawlux" looks far better far longer than the average marine paint.

"Cawlux" Whites come in Gloss, Semi-Gloss and Semi-Flat. Also available in a wide range of sea-tested colors. *It's false economy to use anything less than the best.* Try Woolsey "Cawlux" this season...and you'll agree!



**"TRADEWINDS" FACTS**—This highly toxic anti-fouling paint provides *season-long* freedom from barnacles, borers, grass and other attachments! For wood or steel bottoms, "Tradewinds" gives a smooth, tough finish in either Rich Red or Brilliant Green. May be applied over new wood or old paint in good condition, re-coated in 3 hours, launched after 4 hours.



**C. A. WOOLSEY PAINT & COLOR CO. INC. • 229 E. 42nd St., New York 17**

**Warehouses: Brooklyn, N.Y. • Plymouth, N.C. • Jacksonville, Fla. • Houston, Texas**

**NATIONAL FISHERMAN • Formerly Atlantic Fisherman**

# "Seven years, 19,000 hours of trouble-free engine operation with **GULFLUBE MOTOR OIL H. D.**"

*says Captain Nick Mosconis*

*of Mosconis Brothers Seafood, Apalachicola, Fla.*



The "Aspasia," one of the Mosconis Brothers' deep sea fishing boats, set an enviable record recently when she completed her seventh year of operation—covering 19,000 hours—without engine trouble in any way connected with lubrication. Captain Mosconis gives much of the credit for this success to his use of Gulflube Motor Oil H.D. in the Caterpillar 4600 engine during the entire 19,000 hours.

There are two good reasons for a performance record like this. First, the rich paraffin base of Gulflube Motor Oil H.D. provides a tough film that insures an extra margin of protection against wear. Second, Gulflube H.D. has the right level of detergency to prevent ring sticking, oil port plugging, and oil screen clogging.

Get more fishing, less fixing, lower maintenance costs. Use Gulflube Motor Oil H.D.

And to insure top engine dependability and safety at sea, use Gulf Dieselect Fuel. It's delivered to you refinery clean because your Gulf Marine Dealer's pumps are equipped with Micronic Filters. Just another advantage of doing business with your friendly Gulf Dealer.

**Gulf Oil Corporation • Gulf Refining Company**  
1822 Gulf Building, Pittsburgh 30, Pa.



MEMBER



Surrette 8-volt batteries furnish power aboard the 79-foot shrimp trawler "Anna M" operated by Captain Bob Thompson.

## WORLD'S BEST MARINE BATTERY

### FOR WORK BOATS PLEASURE BOATS

"Surrette marine batteries are designed for the sea", says Capt. Bob Thompson, veteran shrimp boat skipper and master of the 79-foot shrimp trawler *Anna M* which fishes for Carl Muchowich & Sons shrimp company at Freeport, Texas.

"I have had a long and satisfactory association with Surrette batteries, finding them exceptionally suited for rugged fishing operation", says Capt. Thompson.

"Surrette batteries have the extra long life and efficient performance features that are required for large scale fishing duty. The longevity and trouble-free performance of Surrette Batteries reduces our cost of operation, thereby increasing our income.

"Surrette Batteries have earned our confidence knowing that these superior power units are always ready to start our engines and furnish the power that is necessary to operate the radiotelephone, depth recorder, bilge pump, running lights, searchlight and other electrical equipment.

"Surrette batteries have never failed us, thus winning our recommendations", concluded Capt. Thompson.

- Greatest Power Per Pound of Weight
- Greatest Life Expectancy in Their Class
- Greatest Capacity Size for Size
- Greatest Life—Dependability—Capacity Per Dollar Expended



More and more of the country's leading marine builders and operators will use no other. Their choice has been influenced by their experience in comparison with many other leading brands of marine batteries.

Surrette Marine Batteries can be obtained from the following:

#### NOVA SCOTIA

W. N. White & Company

Halifax

#### MAINE

Harris Company

Portland

#### MASSACHUSETTS

Surrette Supply Company

Peabody

Marblehead Yacht Yard, Inc.

James E. Graves Co.

Marblehead

Louis Posner

Fish Pier

Boston

Leo's Battery Service

New Bedford

#### RHODE ISLAND

George's Battery & Marine

Service

#### CONNECTICUT

Robert Horman

New Haven

Edward Welles

Mystic

#### NEW YORK

Surrette Storage Battery Co.

(Warehouse)

205 10th Avenue,

New York City

Edward Carroll

5420 Netherland Avenue

New York City

Maripet Supply Corporation

New York 17, N. Y.

Freeport Marine Supply

Freeport, N. Y.

George Wingerter

Howard Beach, L. I., N. Y.

Marine Electric Corporation

Brooklyn, N. Y.

United Boat & Dock Service

City Island, N. Y.

Sutter Brothers

Gerritsen Beach

Brooklyn, N. Y.

#### NEW JERSEY

Charles W. Rogers

Manasquan

#### PENNSYLVANIA

Johnson & Towers

Philadelphia

Quaker Battery Service

Company

Philadelphia

#### MARYLAND

United Oil Company

Baltimore

Johnson & Towers

Baltimore

#### WASHINGTON, D. C.

Capital Marine Supply

#### VIRGINIA

Norfolk Marine Company

Norfolk

Frantz Supply Company

Salem

#### NORTH CAROLINA

Machine & Supply

Beaufort

#### SOUTH CAROLINA

Hay Oil Company

Charleston

#### FLORIDA

Bay Machine & Welding

Panama City

Tropex Batteries, Inc.

Miami

#### ALABAMA

Chapman Electric Company

Mobile

#### MISSISSIPPI

Kennedy Marine Company

Biloxi

#### LOUISIANA

Waukesha of Houma

Houma

Olympic Power Application

Co.

New Orleans

Byrne & Rice Supply Co.

Morgan City & New Orleans

W. J. Westerfield Company

New Orleans

#### TEXAS

McIntosh Electric Supply Co.

Beaumont

John O. Roby

2417 Polk St.

Houston

Stewart & Stevenson Services

Houston & Corpus Christi

Nash & Cotton

Galveston

Producers Marine Service

Port Isabel

Ewing Battery Co.

Brownsville

Marine Electric Service

Box 56, Port Isabel

Gulf Coast Electric Service

Aransas Pass



# Surrette MARINE BATTERIES

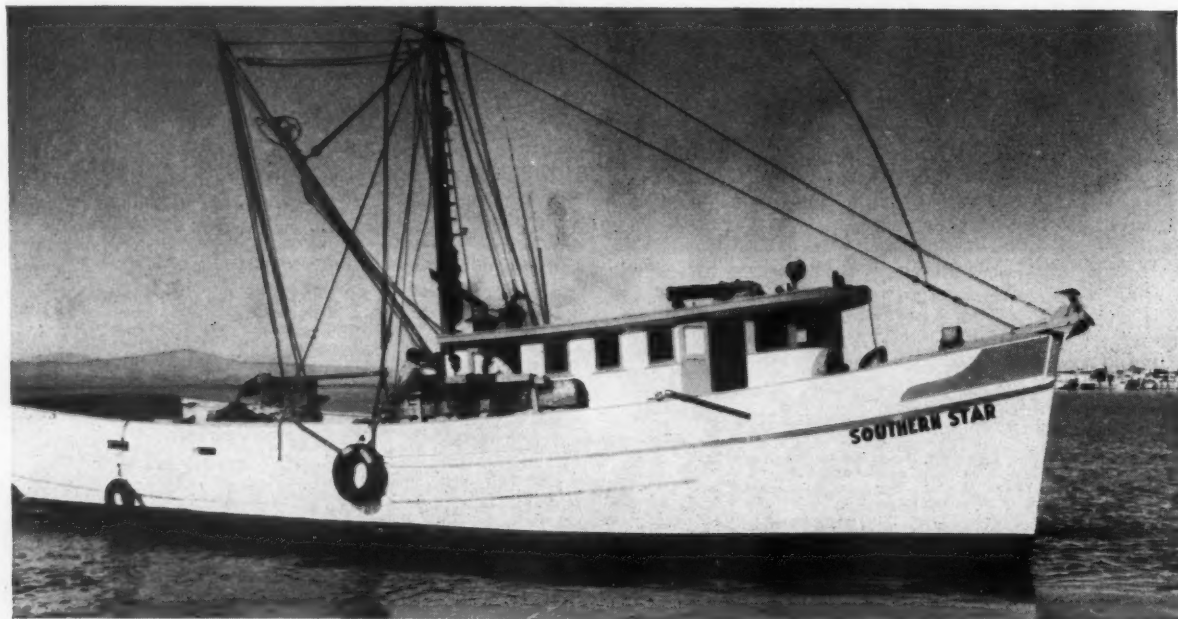
Surrette Storage Battery Company, Inc., Jefferson Avenue, Salem, Mass.



# STYROFOAM ... proves ideal



## low-temperature insulation for Fishing Boats



easy-to-install STYROFOAM offers you a combination of properties unmatched by any other low-temperature insulation

Herndon Marine Products, Inc., of Corpus Christi, Texas, states, "Our shrimping vessels, *Southern Star*, *Southern Bell* and *Southern Hope*, which are insulated with Styrofoam®, have now been in service approximately two years. You will be pleased to know they have given us good service. Our primary reasons for choosing Styrofoam as the insulation material were: (1) its low thermal conductivity; (2) the permanence which it offers as an insulation material; (3) the fact that it would not pack in the walls over extended use or delaminate in service; (4)

its high resistance to water even under extended emersion."

In fleet after fleet, Styrofoam is proving best for low-temperature insulation. The reason is simple: *Only Styrofoam combines all the properties you want for the insulation in your boat.* Prove it yourself . . . check *all* the low-temperature insulations for *all* the properties you want. You'll find only Styrofoam gives you the right combination. For your copy of the Styrofoam Data Book, write THE DOW CHEMICAL COMPANY, Midland, Michigan. Plastics Sales PL 5511.

### Here's how STYROFOAM compares with other low-temperature insulations

	LOW "K" FACTOR	SUPERIOR WATER RESISTANCE	EXCELLENT COMPRESSIVE STRENGTH	LIGHT WEIGHT	EASE OF HANDLING	SUPERIOR RESISTANCE TO VERMIN & DECAY	LOW INSTALLATION COST
STYROFOAM	✓ Permanently Low. Avg. 0.25	✓ Remains Dry and Assures Constant "K" Factor	✓ Highest Strength- Weight Ratio of Any Insulation	✓ Lightest of All Rigid Insulations. Avg. Dens- ity, 1.7 lbs. per cu. ft.	✓ Pleasant—Fabricates Easily with Common Tools. Doesn't Crumble	✓ Has No Food Value	✓ Lowest Cost, Too, Per Year of Service
INSULATION A		✓	✓			✓	✓
INSULATION B	✓			✓			✓
INSULATION C	✓		✓				✓

you can depend on DOW PLASTICS



# Salt-water Ice for Preserving Fish Aboard Ship

*New type ice-making machine developed for use on fishing vessels  
would lengthen keeping time and allow fishing on distant banks*

IT is estimated that present icing methods in the fishing business cause a loss of at least 25% of potential revenue and profits to the industry at sea and on shore. The impossibility of knowing the availability of fish, the length of the trip or definite needs prevents accurate determination of the quantity of ice which should be taken on a fishing voyage. A ship often will find good fishing after several days of idleness, only to be forced to return to port because of lack of ice.

According to Edward H. Cooley of The Cooley Associates Inc., Boston, Mass., the New England fishing industry has been seriously curtailed because trawlers have been unable to fish the more distant banks, which would require longer trips. He believes that use aboard fishing boats of a newly-patented salt-water ice-making machine, which has been turned over to his firm for engineering development and promotion, would play a most important part in making present equipment more profitable, enabling the industry to make the longer trips, and serving to materially increase the volume of fish landed in New England ports, thereby providing for greater employment of labor and capital. In effect, it is said that this new device, known as the Taylor ice machine, would enable smaller trawlers to do the work normally requiring larger equipment.

Repeated tests have clearly established that fish stored for three weeks in salt-water ice are preferable to those stored for one week or ten days in fresh-water ice. Fresh-water ice used in storing fish aboard boats often melts immediately above and around the fish resulting in cavitation and creation of air pockets allowing dehydration of the flesh and oxidation and rancidity of fish oils, which materially lowers quality. On the other hand, salt-water ice does not congeal or allow cavitation since it collapses of its own weight, much as slush ice remains semi-fluid.

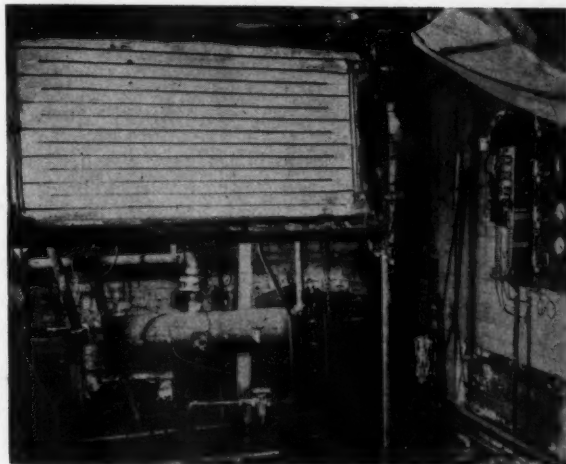
Fresh-water ice used to preserve fish at sea and ashore maintains an approximate temperature in the fish flesh of 36° to 38° F., although the melting temperature of the ice is 32° to 33° F. With salt-water ice, the temperature of the fish flesh is lowered to 32° to 34° F. The melting point of salt-water ice is 28° to 29° F., yet freezing of the fish does not take place.

The temperature of salt-water ice can be controlled as desired by the degree of salinity. This offers opportunity to select the proper temperature for preservation of any specific product—sea water averaging 3% salt freezes at approximately 28° F., while salt water of 10% to 12% salinity freezes at 22° to 24° F. Lowered melting temperatures therefore retard enzymic action and deterioration, thus creating better keeping conditions, and enabling boats to go farther, fish longer and land larger trips of higher quality fish.

## Savings on Cost of Ice

In 1950, there were 8938 trawlers and fishing boats operating out of United States and Alaskan ports, and it is believed that a great majority of these would be suitable for installation of salt-water ice-making machines. Mr. Cooley believes that commercial equipment could be profitably manufactured and sold to these boats at a price which would be amortized within an 18 months' to 2-year period from savings on ice alone; in addition, there would be greater earnings due to increased landings of fish of higher quality.

The experimental Taylor ice machine now at Pensacola, Fla. has a standard commercial electric-driven compressor to supply the refrigerant; hence, experimental or research work is not necessary on that portion of the equipment. The expansion coils in this machine consist



Laboratory model of the Taylor salt-water ice-making machine.

of a flattened hollow plate or plates which, with the expanding gas inside, create a heat-absorbing unit. This is the portion of the equipment on which experimental work must be done.

The cost of the approved commercial machine cannot be determined definitely until final development of the plates. However, it is believed that satisfactory machines of proper capacity could be installed on New England fishing trawlers at a cost of not more than \$15,000 each. Many components, such as compressors, motor drive, automatic controls, etc., are presently standard commercial equipment, where the only unknown is cost of assembly, which can be fairly accurately estimated.

The present laboratory model has satisfactorily demonstrated the value and efficiency of the process. It is believed, however, that improved plates, with added capacity, greater efficiency and longer life, should be developed for commercial installations.

## Contact Freezing Process Used

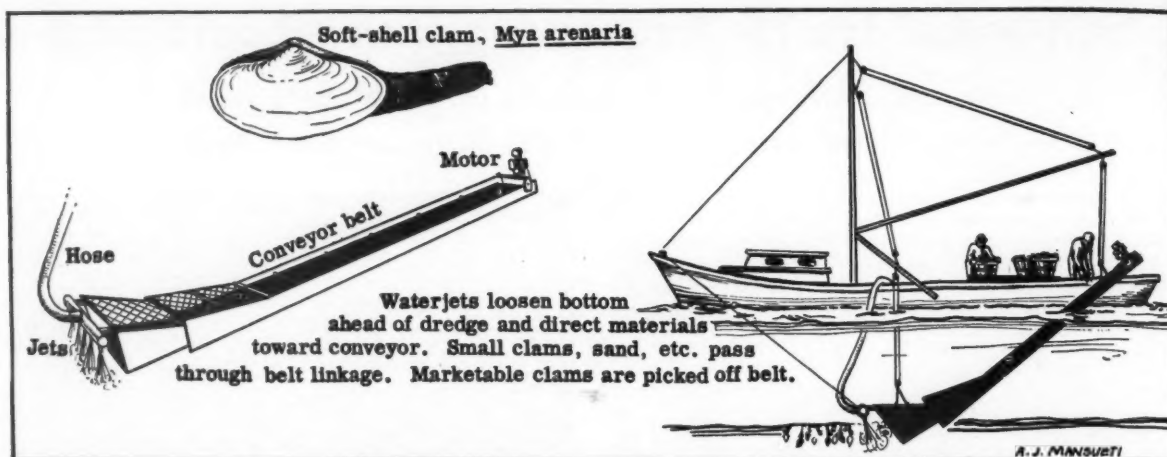
The Taylor ice-making machine provides a means of utilizing artificial refrigeration that is unusually efficient. Maximum efficiency in producing ice obtains only when the water is in direct contact with the freezing plate. This is true because heat or cold conduction and transfer costs are increased approximately in proportion to the square of the thickness of the material to be frozen or through which the heat must travel.

When the thickness of the layer of ice formed in an ice tank or on an ice plate is tripled, the power required will be approximately proportional to the square of 3, which is 9 times as great. To further illustrate, with a layer of ice ¼" thick, the power and cost would be 4 times as great as it would be if the layer were half as thick (⅛"). It thus can be seen how savings result from contact freezing.

The expansion unit of the Taylor machine can be submerged in a tank of liquid and used for lowering temperature or for freezing of ice. When the machine is used for manufacturing ice, a thin layer of ice will be formed on the plate.

The important feature of the Taylor machine is the controlled distortion of the surface of the plate in such a manner that a portion of the layer of ice is separated from the plate, thus leaving a small cavity to fill with

(Continued on page 42)



Drawing showing hydraulic dredge used in Maryland soft clam industry. (Courtesy of "Maryland Tidewater News.")

## Hydraulic Dredge Proves Effective Gear for Soft-Clamming in Maryland

*Low mortality and less breakage in harvesting plus high growth rate, promise sustained yield*

THE fear that Maryland's soft clam industry might be a "mining operation" based on long-accumulated stocks of clams, and therefore of short duration, appears to be unfounded. Data obtained thus far by the Maryland Department of Research and Education indicate that the clams grow very rapidly, reaching a length of two inches or more during their second year of life, and about three inches in the third year. Subsequent growth appears to be slow, and it is likely that relatively few clams survive more than three years.

During the past year a number of conservation officials experienced in clam research and management, including representatives of the U. S. Fish & Wildlife Service, the Dominion of Canada and the States of Maine and Massachusetts, have observed the operation of the hydraulic dredge used in taking soft-shell clams in Maryland. All agree that it is an effective gear and a considerable improvement conservation-wise over any other method of harvesting thus far devised.

### Less Breakage

In the New England-Canadian clamming area, where hand-digging methods are employed, many clams of market size are broken and the high mortality rate of undersized clams represents a serious loss. It is claimed that an experienced and careful hydraulic dredge operator breaks not more than about five percent of the catch, and most of the clams that are missed by the dredge are able to re-bury themselves in the bottom.

Until the clams are completely "dug in" they are vulnerable to predators such as crabs and eels, and some loss undoubtedly occurs. However, if these clams were allowed to remain undisturbed in the bottom, in almost all areas natural mortality would claim 100 percent of the population, with no direct benefit to man.

### Dredge Is Recent Development

The hydraulic dredge used in Maryland was developed in 1950 and subsequently patented by Fletcher Hanks, an

enterprising waterman from the Eastern Shore. It harvests soft clams efficiently at depths up to 8 feet, and the minimum depth of operation is limited only by the draft of the boat on which the rig is carried.

The dredge consists of an endless chain link conveyor belt attached to a sled-like structure with an adjustable blade. A hydraulic system directs powerful jets of water backward toward the blade conveyor. The entire rig works like the dredge used in surf clamming, with the addition of a conveyor belt which would not be feasible in the deeper, rougher waters of the ocean. The dredge is swung alongside the boat from booms.

As the boat moves forward slowly, the jets of water loosen the bottom ahead of the dredge blade. Clams, shells, and debris are picked up by the blade and carried upward on the conveyor belt. At the upper end of the conveyor a crewman picks out the marketable clams, and the remainder of the catch falls overboard astern.

### Valuable New Industry

In the Chesapeake Bay, the soft clam fishery has developed into a valuable new industry. The clam, known locally as maninose, is highly popular in New England where it is dug by hand at low tide from tidal flats. In Maryland the normal range of the tides is slight and there are few tidal flats where digging is practicable. For this reason, and because of the popularity of oysters, the maninose fishery lay dormant in the State of Maryland until recently.

The rapid growth of the soft clam in Maryland is in sharp contrast to growth rates and longevity in more northern waters, where clams may require as long as five to six years to reach marketable size (two inches). The apparently short life span of Maryland clams indicates that no great accumulation of stocks could occur.

### Rapid Replacement of Stocks

The high growth rate, combined with adequate reproductive potential and moderate mortality rate, should result in rapid replacement of harvested soft clam stocks. There are signs that the growth rate of undersized clams is accelerated by removal of the larger clams. Observations indicate that, with the present method of hydraulic dredging and the enforcement of adequate conservation regulations, a given bed can be profitably harvested at least once a year.

All the evidence available at present indicates that the Maryland soft-shell clam is a replaceable resource. Current value of the industry, approximately half a million dollars gross income to dredge operators and dealers, is derived almost exclusively from operations in counties representing only about one-fifth of the total area of bottoms beneath tidewater.



# Catching Great Lakes Smelt Through the Ice

By Ted Bentz

**G**REAT Lakes commercial fishermen who use gill and pond nets in open water during Spring, Summer and Fall, have found that in the Winter months netting through ice for lake smelt provides them with substantially increased income. Currently from areas such as Green Bay, Northern Lake Michigan, Straits of Mackinac, Saginaw Bay, Northern Georgian Bay districts, and numerous Lake Superior areas, the smelt harvest is ranging upward in millions of pounds annually.

In 1949, the commercial smelt harvest for Michigan waters alone amounted to 1,059,000 lbs., which does not include the takes by casual and game fishermen. In 1950, the yield increased to 1,741,000 lbs., while the catch by commercial fishermen in Michigan waters in 1953 skyrocketed to a whopping 4,250,000 lbs. During those years the commercial yield of smelt in Wisconsin waters, usually lower than Michigan's haul, was comparatively as large. And for all the Great Lakes, the commercial smelt take in 1954 was estimated to have reached 20,000,000 lbs., when casual commercial catches are included.

The 1955 smelt harvest has started in Michigan's Bay de Noc area, and daily lifts from pound nets set under the ice are averaging around 40,000 lbs. Approximately 250 nets were being fished the early part of March.

Bay de Noc smelt are being used in a new product this season—frozen fried smelt—which are being packed by Griffin's Associated Fisheries of Milwaukee, in cooperation with the Herbert A. Nieman Co., Hermansville, Mich. The smelt are processed in a modern quick-freeze plant which can handle 60,000 lbs. daily, while the plant's stainless steel frying equipment has a capacity of 15,000 lbs. per day. The new easy-to-prepare smelt item is packed 10 oz. to the carton.

Another new smelt product from Griffin's Fisheries is frozen breaded smelt for the restaurant trade. These are packed 3 lbs. to the carton.

The Great Lakes smelt industry acquired a big shot in the arm in late years from cats! Smelt makes excellent cat food, and this year, as last, large fish canning processors are demanding the small fish.

## Smelt Transplanted from East Coast

The smelt fishery had its beginning back in 1909, when a fish biologist brought from the East Coast a batch of live smelt and dumped them in southern Lake Michigan. Years passed, and nothing happened. Then in 1918 or thereabouts, a number of live smelt were transported from the East Coast and placed in Crystal Lake, which connects with Lake Michigan.

Nobody in subsequent years paid much attention to the little silver fish. As their spawning runs increased every year and commercial fishermen began to haul them in along with other small-size fish, people became only impassively interested. Little did they realize that one day smelt would become a major item on the list of commercial fresh-water fishes harvested from the Great Lakes.



Ray Hermans preparing to lift a smelt net through the ice in the Bay de Noc area near Escanaba, Mich.

Then in March, 1932, residents and commercial fishermen of East Jordan, Mich., who recognized the vast potential of lake smelt resources, gave these fast-multiplying fish an official recognition by organizing the "National Order of Smelt." And ever since, with the exception of the years 1941-43 when a mysterious disease virtually exterminated the species, smelt populations in the Great Lakes have been growing by leaps and bounds.

Commercial fishermen, aside from enjoying a profitable income from smelt netting, find lifting netloads of these fish through the ice an interesting diversion. Ice netting occasionally provides the fisherman with exciting adventure. Take, for instance, when the ice breaks from shore leaving the fisherman on a floe. But experienced netters are pretty sure of their ground before they venture out on the ice. Even then, for protection against an ice exodus, they take along a light rowboat.

Another thrill that comes with ice fishing is the sudden appearance of fish, like ghosts, out of the vasty deep. On one occasion ice netters on Bay de Noc had not lifted a single fish for 24 hours. Then suddenly fish crowded into their nets so solidly that the twine groaned with protestations of strain. Since smelt play havoc with cotton netting, most fishermen prefer to use nylon or linen nets.

Ice netting is somewhat different from the ordinary netting procedure which has been going on since time immemorial. It provides commercial fishermen with a change from conventional, open-water operations, and lures an estimated 2,500 to brave Great Lakes ice. These fishermen take smelt, herring, whitefish, pike and perch.

(Continued on page 36)

The smelt harvest through the ice of Little Bay de Noc is big business at Escanaba, Mich., where more than a million pounds of the small silver fish are landed annually. Commercial fishing crews shown above were catching over 1,000 lbs. per lift on this particular day. The men are, from left to right, Fred Cass, Clarence Vedin and James Kessler.



# How the Industry Views Fishing Restrictions

*John J. Real\* says necessity of controls and benefits to be gained should be clearly proven by research before regulations are adopted*

**I**T is the commercial fisherman who gains the most from sound fisheries management and loses the most if there is lack of it where needed. The sportsman gains the least with management and loses the least if it is not there. If the stock becomes so low as to become unprofitable to fish, the commercial fisherman must leave it. There still will be fish in the ocean and usually in sufficient quantity to sustain a sport fishing activity.

The commercial fisherman rightfully demands, before an invasion of his privilege occurs, that proof of the necessity of control and its consequent benefits to all be established beyond a reasonable doubt or at least by a preponderance of the evidence. What is usually interpreted as short-sightedness, indifference or greed on the part of commercial fishermen when controls are proposed is actually nothing more than the exercise of legitimate caution in an analysis of the need for, or the effects of, proposed restrictive measures.

No device—whether it be bag limit, closed season, limitation as to use, size limit, gear restriction, closed area or any of the others generally followed—fits every situation even where control is found to be necessary. The choice must follow the objective and will vary with the degree of limitation required and with the type of fishery concerned. One general principle alone need be borne in mind. That device which occasions the least economic detriment, while substantially accomplishing the same objective, should be used. In such a situation the fisherman, because of his knowledge of his own business, should be given prime consideration in the selection of the device.

## Protection of Resource Considered Important

Individually the fisherman may view all restrictive legislation in much the same vein as the ordinary citizen views taxation or other restraints on his liberty, or as the patient considers medicine; he doesn't like it but he does not quarrel with its necessity in the proper cases.

Collectively, however, the fisherman will not only accept but will seek curbs on himself where he is convinced that such is necessary to the continued well being of the fishery. As a good citizen he regards the legitimate protection of a natural resource as important to the present and future welfare of the nation. As a thoroughly prac-

\*Excerpts of speech presented at the Fishery Products Conference of the National Cannery Association's annual convention at Chicago last month by Mr. Real, who was manager of Fishermen's Cooperative Association, San Pedro, Calif., prior to entering private law practice recently.

tical businessman he regards it as vital to maintain the fishery resource at as constant a level as can be achieved by any act of man.

The proponents of unnecessary restriction do not seem to realize that the initial cost and the normal useful life of a processing plant or fishing vessel is far greater than that of a rod and reel. They do not consider that those persons making such investments are fully conscious of the necessity for maintaining a constant source of supply of raw fish.

The proponents of restriction have the upper hand politically. They are far more numerous than the commercial fishermen. The fact that they are more widespread geographically gives them better access to more legislative ears.

The word "conservation" is always the lead banner of the apostles of restriction. The situation is made more difficult by the existence of public conflict among scientists themselves on specific subjects of fishery legislation. Worse still is the reluctance of some, for political reasons, to express a scientific opinion on a given subject in dispute.

This places the commercial fisherman in his fight against illegitimate restriction in a seriously detrimental position. He usually loses or is forced to compromise to "save his skin." It is for the most part this "compromise legislation" which subjects many sections of our fish and game codes to the criticism that they are conceived in ignorance and dedicated to the proposition that all men must be placated.

The fish in the oceans were created to be taken and utilized by man. Since it cannot be left to each man to catch his own fish, commercial fishing is needed to assure that the fisheries will attain their highest degree of utility. It is paramount that the concept of conservation of the ocean fisheries be viewed in that light.

Dr. W. M. Chapman summed up the situation as follows in a report made to a Congressional Committee while he was in the Department of State: "Each population of fish has a certain crop which can be safely taken from it each year without harming the productive potential of the population. If a larger crop is taken there is wastage because that will cut down the crop that can be taken next year and in the following years. What is not generally understood, however, is that if a smaller crop than this safe maximum is taken there is also wastage. The fish simply die unused."

## Harm from Experimental Restrictions

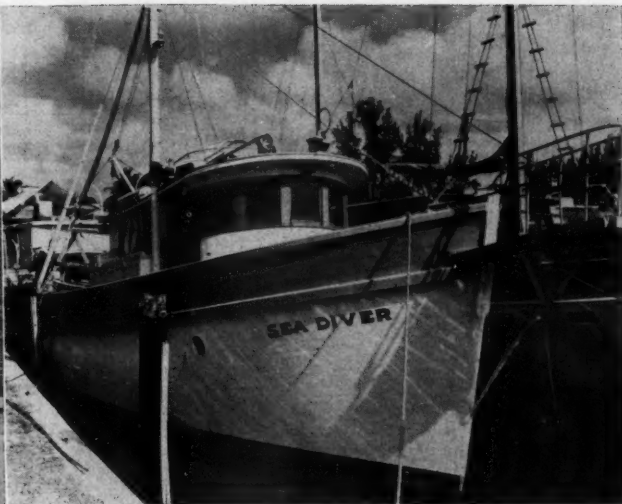
Any experimental restriction would have to be enforced for years before its validity, or lack thereof, was manifest. It would be little solace to the world for its loss, and little recompense to the fisherman for the economic hardship suffered by him, to be told at the end of this experimental period, "We're sorry. We made a mistake. More fish could have been taken." Unless possessed of some not now apparent Phoenix-like quality, the industry might never recoup and the interim blow to true conservation would indeed be a severe one.

One outstanding reason why a fisherman is cautious about embracing any given restrictive measure lies in the fact that in most instances of presently uncontrolled fisheries there exists public scientific disagreement as to

*(Continued on page 32)*

Fishing vessels at San Pedro, Calif. In the foreground is the "Delle-Marie", owned by F. A. Kirchhof of Astoria, Ore., while ahead of her are the albacore seiners "Santa Teresa", owned by John J. Sima; "New Sanantonio", Isidoro Califano; and "St. Aniello II", owned by John Guglielmo; all of San Pedro.





Art McKee, left, of the Sunken Treasure Museum on Plantation Key, looking into the "Kingfisher" depth sounder on the 67' "Sea Diver". She leaves Miami, Fla. in April on a treasure-hunting expedition off Haiti Island. McKee has been on various treasure searches made by the "Sea Diver", a converted shrimper owned by Edwin A. Link of Binghamton, N. Y.

## Treasure Hunting off Haiti by "Sea Diver"

**Converted shrimp trawler will use new type electronic depth sounder to locate remains of Columbus' ship "Santa Maria"**

**A**N expedition to locate the remains of the *Santa Maria*, the flagship of the tiny fleet with which Christopher Columbus discovered America in 1492, will leave Miami, Fla. in early April. A converted shrimp boat, the 67' *Sea Diver* has been equipped with a new type electronic depth sounder to find the sunken marine treasure. Heading the expedition will be Edwin A. Link, Binghamton, N. Y. industrialist who invented the Link aviation trainer.

A veteran of successful searches for sunken Spanish marine treasures in the Florida Keys, Link said the explorations will last two or three months and will be centered on Lemonade Reef off the north coast of Haiti. He is very optimistic about the success of the voyage because of new translations and interpretations of Columbus' original logs of his trip to America. As a result of research by navigators of recently-uncovered documentary material, the location of the *Santa Maria* has been pinpointed to an area of a few miles.

In addition to Link and his wife, both experienced deep-sea divers, there will be six other scientists and specialists on board the *Sea Diver*, plus two Bahamian natives. They expect to find such things as cannons, anchors, swords, bits of metal and utensils embedded in the coral rock.

On previous explorations Link discovered a cannon dating back to the time of Columbus. The cannon, identified by the Smithsonian Institute, is believed to be the oldest known European weapon found on this side of the Atlantic.

### Vessel Being Outfitted at Miami

The *Sea Diver*, purchased by Link about a year and a half ago and used in earlier expeditions along the Keys, is being outfitted at the Florida Yacht Basin in Miami. Key to the success of the vessel's forthcoming expedition

will be her new "Kingfisher" electronic depth sounder, designed for fishermen and other owners of vessels who want to know definitely what is at the bottom, or anywhere between the surface and the bottom. Manufactured for Bludworth Marine by Kelvin & Hughes of England, the device is made in two models, for the detection of fish at depths ranging from either 0 to 180 or 0 to 240 fathoms.

Essentially, the new "Kingfisher" consists of an electronic super-sensitive recording echo sounder of special design in combination with a cathode ray tube viewing unit which can be quickly read and interpreted. The device enables the fisherman to tell where fish are located, and whether there is a single large fish or school under his vessel.

The "Kingfisher" has the ability to take any recorded section of the water depth, at 5, 10 or 15 fathoms inter-



Engine room on the "Sea Diver", showing her Caterpillar D17000 Diesel, which was supplied by Shelley Tractor & Equipment Co. of Miami, Fla.





The 38' troller and crab boat "Cleora" on the ways at Kelley Boat Works, Charleston, Ore. She is owned by Capt. Arnold Hockema of Coos Bay, and is equipped with a 110 hp. Chrysler Crown engine, Kaar direction finder and Kaar 50-watt radiotelephone.

## Observations on Effects of Temperature, Tide, Wind On Salmon Trolling

**I**N the course of 50 years, fishermen trolling for spring and coho salmon have learned that the fish congregate at certain banks and rapids where they can be caught with real or simulated lures. This much is general knowledge. When one man is unusually successful others copy his equipment and methods so that the techniques are always improving—or at least changing. There is considerable evidence that lures are selective but that any suitable lure will catch fish if the fish can see it and are in the mood to strike. Therefore the fisherman cannot be sure whether big catches are due to his technique and gear, or are due to having his gear in the right place at the right time.

No doubt the fish tend to congregate on the fishing grounds because the conditions suit them. Doubtless their behaviour, depth, and particular location in the area depend to some extent on such things as temperature and salinity of the water, weather, currents, tide, light, and so on. Obviously these reactions are not simple or they would have been discovered long ago. However, the belief persists that the fish seek the conditions they enjoy, when and where they occur in the fishing area. If we can learn what these are, and predict when and where

vals or more, and expand that record on a cathode ray tube to the point where one fathom of depth equals one inch of height on the viewing tube. The viewing unit thus achieves a high degree of resolution and is particularly suited to the detailed study of a single fish or schools right on the bottom. The "Kingfisher" is also proving invaluable in navigation and finding wrecks or rock piles when functioning solely as a depthometer.

The *Sea Diver*, built in 1951 by Miami Shipbuilding Co., is powered by a Caterpillar D17000, 162 hp. Diesel, supplied by Shelley Tractor & Equipment Co. of Miami. Other equipment includes one-cylinder Nordberg Diesel generating set.

they will occur, it should be somewhat easier for the troll fishermen to locate and catch fish.

### Conditions in Sea

The obvious approach is to learn from the fisherman when, where, and how he got his good catches and his poor catches, and to see if these were related in any way to the conditions in the sea. Some years ago a study was made by the Fisheries Research Board of Canada to determine how conditions may affect troll fishing for salmon.

Fifteen troll fishermen, working between Swiftsure Bank and Laredo Sound, kept records of their daily catch, the temperature at the depth where they were fishing, and the weather. Obviously the data collected was too scanty and the areas too general for reliable study. However, as pointed out by John P. Tully, Pacific Oceanographic Group, Pacific Biological Station, this work has provided the background on which future studies can be based. It is possible that a detailed study of the behaviour of the fish in one small locality, with better instruments, would be more profitable.

The best spring salmon fishing was about one fish per hour in May and June, and the best coho fishing was about three fish per hour in August. The performance of six fishermen chosen at random from the records showed the catch per hour varied from 2.6 to 3.7 fish and is no doubt a measure of the fishermen's individual skill or the particular areas they fished. However, the difference in effort outweighs the difference in skill. The biggest seasonal catches were made by the men who worked the longest, which indicates that to catch fish a fisherman must have his hook in the water.

The catch data were classified according to the temperatures observed by the fishermen at the depth they were fishing, and with average surface seawater temperatures observed at coastal stations in each district. The obvious conclusion from these data is that temperature within the summer range (45° to 55° F.) is not a controlling factor.

### Moon Phases

The tide ranges correspond to the moon phases. Spring tides occur in alternate weeks during the new and full moon, and neap tides occur during the intervening first and last quarter. If the fishery were related to either of these phenomena a bi-weekly or a monthly cycle of catch would occur. Such has not been observed by fishermen, or in these data.

The winds were classified as light (less than 12 miles per hour), and strong (greater than 12 miles per hour), and divided into major wind directions.

The coho salmon catch during light southeast winds and the spring salmon catch during strong southeast winds at Kyuquot were significantly greater than average. This is probably a local or seasonal condition since it is not evident in the data from other places.

The fact that the catch during strong winds, when fishing is difficult, was as great as during light winds, when fishing is easier, may indicate that there is a greater possibility of catching fish in rough weather. That is, the difficulty of the operation is offset by greater availability of fish.

These data indicate that there is no general relation between catch and the temperature, tide, or wind. Although these data are sketchy this conclusion may be accepted because it agrees with the fishing experience. However, it is the consensus of the fishermen that the fish do react to these factors, but in different ways in each locality.

There is some reason to believe that the fish are sensitive to differences of temperature which occur in the tide lines (boundaries) between water masses. Fish in one water mass will hesitate to enter another, and so tend to congregate near the boundary. These boundaries develop at different stages of the tide in different localities so that tide in another. In such cases it is evident that the fish may be found at high tide in one place and at half are sensitive to both temperature and tide, but the present data are not sufficient to describe the situation.

## Maine Bills Would Strengthen Sardine Inspection Laws

Richard E. Reed, executive secretary of the Maine sardine industry, announced on February 10 that his group would seek enactment of legislation to provide more strict quality control of the sardine pack. He said a bill would be introduced by Senator J. Hollis Wyman of Milbridge, to give the State Agriculture Department Inspection Division more authority to set up and enforce standards of quality and grades for the 2,500,000 to 3,000,000 cases of sardines packed annually. The bill also would provide for better state supervision of conditions in the plants, fish handling and other factors involved in canning.

Reed said the proposal resulted from industry research and was approved by all the canners. Another bill would require that all cans containing only four fish be plainly labelled accordingly, and this bill also has the full backing of the industry.

### New Type Lobster Trap

William La Pierre, Belfast boat builder who has for several years been covering boats with a rough waterproof material made of Fiberglas and plastic, now has produced a lobster trap of the same material. Constructed on molds on which the layers of glass cloth are given a coating of plastic, the traps are waterproof, rotproof and tough without a nail or a seam.

The traps have knobs on top of one that fit into holes on the bottom of the next to allow easy stacking aboard boats. Weight is 18 lbs., against 30 lbs. for a fully-loaded wooden trap. The new type doesn't need bricks to weight it. It has a curved top designed to prevent currents from rolling it over on the bottom of the sea.

### Possibilities of Large Herring Fishery

Leslie W. Scattergood, fish research biologist with the U. S. Fish & Wildlife Service at Boothbay Harbor, is interested in the possibility of catching large herring off the Maine coast. Scattergood, who spent last year at the Institute of Marine Research at Bergen, Norway, came back armed with a broad knowledge of Norwegian herring fishing techniques.

As matters now stand, Scattergood said, the U. S. fishing industry knows practically nothing about possibilities of fishing for large herring. He states that the first task of any research program would be to determine whether sufficient quantities of large herring exist off the American coast.

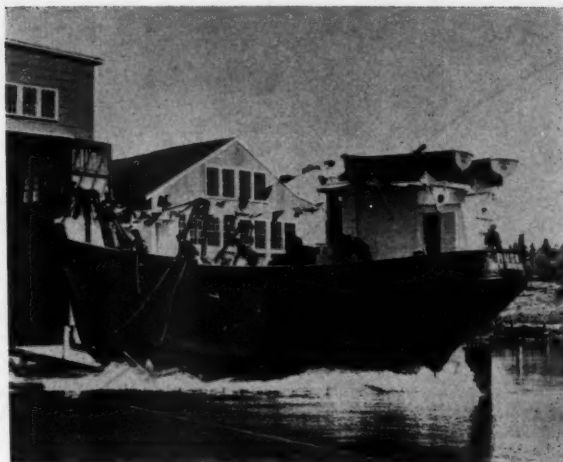
On the other side of the Atlantic, Scattergood has seen the Norwegians in one day net a catch of 210,000,000 lbs.—equal to an average two years' sardine take off this coast. The Norwegian herring are larger than the American type, he said. They go for meal and oil, while the U. S. catch is primarily used for food.

Scattergood was impressed by the Norwegian effort in fisheries education. Five free schools are operated at which public school graduates and older men can qualify as fishing skippers, motor operators or cooks and bakers.

### Would Restrict Quahaug Transplanting

A Maine state legislative committee was asked on February 10 by State Sea & Shore Fisheries Commissioner Stanley R. Tupper to approve legislation giving him the right to restrict the transplanting of quahaugs for seed purposes. Tupper said control over the use of seed clams would aid in propagation of the state's shellfish resources.

The proposed measure says only 25 per cent of the quahaugs in an area could be transplanted for seeding and only 5 per cent of the estimated number of clams in the area could be given to any person or firm approved by the department. Now, anyone can take as many quahaugs to or from any place they wish for propagation purposes.



LAUNCHING OF NEW DRAGGER "RUSH" by Harvey F. Gamage, Shipbuilder, South Bristol, Me., for Capt. Rudolph B. Matland, Fairhaven, Mass. This 73' vessel is powered with a 250 hp. Wolverine Diesel.

### Seek Additional Ships to Chart Fishing Areas

Senator Frederick G. Payne has introduced a bill in the U. S. Senate on behalf of Senator Margaret Chase Smith and himself asking for two additional survey ships for the Coast & Geodetic Survey. The new ships would make it possible to complete surveys of the Gulf of Maine and make a much-needed resurvey of Georges Bank and other fishing areas.

### Record-Size Redfish Landed

What was believed to be the largest redfish ever caught on the Atlantic seaboard was taken aboard the Birds Eye trawler *Drift* on the eastern side of the Grand Banks several months ago. The giant weighed 19½ lbs., and was 31½ inches in length. The normal redfish is 14 inches long and weighs 1½ lbs. The Woods Hole Oceanographic Institute experts placed the age of the big fish at 35 to 39 years.

### Re-appointed to Sardine Tax Committee

Lester Wass and Arnold Vogl, of Eastport, were recently re-appointed as members of the Maine Sardine Tax Committee for five year terms by Commissioner Stanley R. Tupper. Both men are active sardine canners and already have served on the committee for four years as original appointees when the tax law was passed by the Legislature in 1951.

Ralph B. Stevens, Yarmouth cannery, was elected chairman of the committee at a recent meeting. Milroy J. Warren of Lubec was appointed as a member of the committee to fill the unexpired term of Carroll B. Peacock, also of Lubec, who is automatically ineligible to remain as a member while serving on the Executive Council.

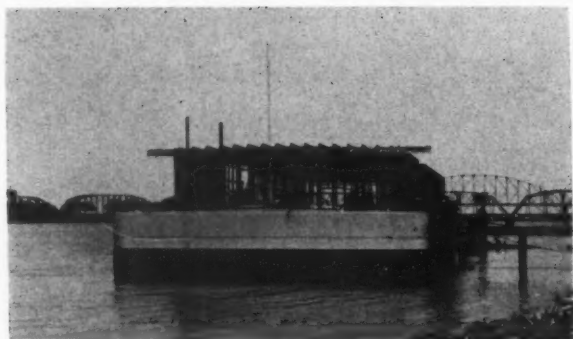
### Landings for Year Show Big Gain

Landings of finfish in Maine ports for the 12 months ending December, 1954 amounted to 255,438,950 lbs., valued at \$6,547,600, as compared with 210,932,200 lbs. landed during 1953 with a value of \$5,631,200.

Total shellfish landings for 1954 were 28,467,000 lbs., worth \$10,308,000, compared with 30,626,500 lbs., valued at \$11,122,900 in 1953.

Herring, round, led all varieties of fish with 123,602,100 lbs. being landed. Ocean perch was second with 79,670,700 lbs. Third was whiting, round, with 9,317,850 lbs. Other big producers were haddock, pollock, alewives, menhaden and cod.

In the shellfish varieties, lobsters led with 21,667,700 lbs. valued at \$8,087,150, followed by clams, scallops and crabs.



The new 136' x 42' x 9' dredge "Captain Charlie", owned by Oyster Shell Products Corp., Morgan City, La. Wrought iron was used for the hull of the vessel, which was constructed recently at the firm's shipyard. She is powered with a 1200 hp. General Motors Diesel.

## Louisiana Inside Waters Closed to Shrimping

L. D. Young, Jr., director of the Louisiana Wild Life and Fisheries Commission, announced recently that the season for legally taking shrimp from the state's inside waters closed February 15 and will remain closed until April 15. Young said the season again will be closed from June 21 until August 8.

During the closed season, bait shrimp may be taken in inside waters in the amount of five lbs. per person or 50 lbs. per boat, regardless of the number of people aboard. Bait shrimp may be taken in seines less than 100 ft. long, trawls less than 16 ft., cast nets, dip nets or bait traps, but trawls or seines may not be used between sunset and sunrise.

Outside waters are identified as all waters beyond a depth of three fathoms in the Gulf of Mexico.

## Fisheries Statistical Program Expanded

A large expansion of the fishery statistical activities of the Fish and Wildlife Service in the Gulf of Mexico has been made possible as a result of the allocation of funds for the collection of detailed shrimp data under the Saltonstall-Kennedy Act. C. H. Lyles, who has had wide experience in the collection of fishery data in the Gulf States, has been transferred to New Orleans to take charge of the expanded program. He is located in the Custom House, 423 Canal Street.

## Oyster Shell Firm Has Two New Boats

Oyster Shell Products Corp. has two new vessels for use in their business, both of which were constructed at their Morgan City, La. shipyard. The hulls of both the *Captain Charlie*, a hydraulic dredge used in dredging oyster shells, and the *Smith Alpha*, a tugboat, are fabricated of corrosion-resistant wrought iron plate.

More than 76 tons of this plate, 5/16-inch to two inches thick, are in the hull and keel applications. Wrought iron's ability to resist the aggressive action of corrosive water is expected to reduce the frequency of repairs.

The hull of dredge *Captain Charlie* is 136 feet by 42 feet by nine feet, and is one of the largest craft built in the Morgan City area. A 1200 hp. General Motors Diesel is used to power the dredging and processing equipment on the craft.

Tugboat *Smith Alpha* is 88 feet long with a 25-foot beam and depth of 10 feet. She is powered by a 550 hp. steam engine. Both workboats are of all-welded construction.

## Raymond LeLoup

Raymond LeLoup, associated with the R. LeLoup Shrimp Co. of Golden Meadow, La. and Brownsville,

Texas, died recently in New Orleans. Mr. LeLoup was a member of the National Fisheries Institute, and for many years had been a fishing fleet operator and processor. He assisted in the development of Brownsville into the fishing center it is today, and took advantage of the discovery of brown grooved shrimp off the Texas and Mexican coasts.

## North Carolina Fishermen Favor Statistical Program

Approval of a federal-state supported plan for gathering and publishing information regarding finfish and shellfish taken in and near North Carolina's waters was expressed by some 200 commercial fishermen and fish dealers at a meeting in Morehead City February 21.

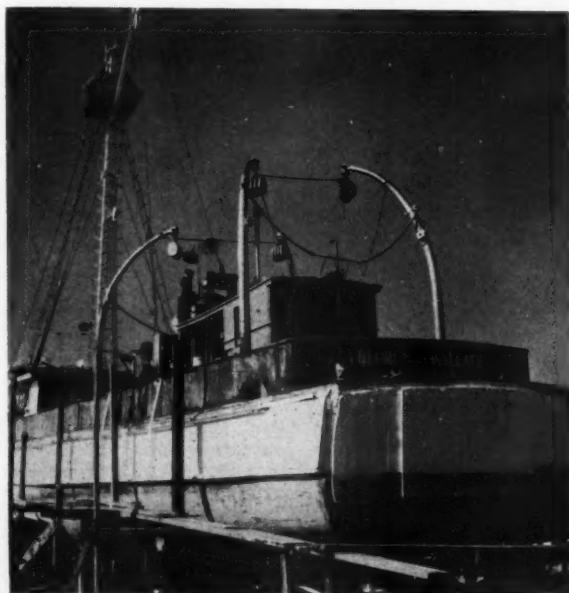
The new program was explained by State Dept. of Conservation and Development Director Ben E. Douglas; Edward Peterson, assistant chief of the Statistical Division, Fish & Wildlife Service, Washington, D. C.; Cecil Morris of Atlantic, chairman of the State Dept. of Conservation and Development's commercial fisheries committee; and Dr. Harden Taylor of New York City, advisor to the Institute of Fisheries at Morehead City.

The new program, aimed at collecting biological and economic information on shrimp and other species of shellfish and finfish, is being supported by the Saltonstall-Kennedy bill passed by Congress last summer. North Carolina gets two of the four statistical experts assigned to the Southeastern area, with South Carolina and Georgia getting one each.

Peterson, who will be stationed at Beaufort with Charles Stewart, said principal objectives will be to obtain complete data on shrimp and correlate it from the biological and economic standpoint, and also information on finfish to determine when and where certain species of finfish are to be found.

## Committee Approves Compromise Boat Tax Bill

Following the addition of three amendments, the commercial fisheries committee of the North Carolina House



The 106' menhaden boat "George R. Wallace" of Cameron, La., shown at the Morehead City (N. C.) Shipbuilding Corp. yards, where she is being overhauled. The vessel is named for her owner, who has one of the largest menhaden fleets in the country.



of Representatives approved on February 16 a compromise bill fixing taxes on commercial fishing boats.

Under terms of the proposal, a flat license tax of \$2 would be charged for commercial boats up to 18 ft.; boats between 18 and 26 ft., 50 cents per foot; between 26 and 44 ft., 75 cents; and all over 44 ft., \$1 per foot.

### To Build New Canning Plant

A new firm, Seashore Packing Co., has purchased property on Gallants Creek east of the Fish Meal Co., Beaufort, and plans to put up a building to can seafood for human and animal consumption. T. B. Smith, Davis, who also has a fish house in Beaufort, is president of the firm. Affiliated with him is Charles Davis of the Davis Seafood Co., Beaufort.

### Named Chairman of House Fisheries Committee

Russell A. Swindell, Hyde County's member of the State House of Representatives, was appointed recently to serve as chairman of the Committee on Commercial Fisheries. Swindell served as a member of the Fisheries Committee during the 1953 session, and is a member of the Atlantic States Marine Fisheries Commission.

## Florida Shrimp Beds

### Still Big Producers

Dr. C. P. Idyll of the University of Miami's Marine Laboratory denied reports last month that Florida's vast shrimp beds are beginning to disappear. He said catches in the Key West-Dry Tortugas grounds totaled some 17,500,000 lbs. each in 1953 and 1954, as compared with the record 19,000,000 lbs. caught in 1951.

A double-phase campaign is under way to boost demand and stabilize prices, and the shrimp industry is stepping up advertising campaigns to stress the highly nutritious value of shrimp. Scientists are conducting research to improve the quality of shrimp, while the Marine Laboratory is making a study of icing methods.

### May Revise Laws Regulating Net Mesh Size

According to Rep. Z. W. Revelle, Wakulla County's laws regulating the mesh size of fish nets may come up for revision in the coming session of the Legislature. The present law prohibits the use of small varieties of nets with mesh size less than three-eighths inch bar or two and three-quarters inch stretched mesh. But the regulation permits one-inch bar and two inches stretched mesh for nets measuring more than 50 ft. in length.

Revelle has expressed the thought that this law is discriminating against small operators. He would like to see the mesh size standardized to pertain to each net alike. For good conservation practices, he has indicated he would be willing to see the larger mesh adopted for all lengths.

### Fishery Statistics Offices Opened

New fishery statistical offices have been opened recently by the Fish and Wildlife Service in Tampa and Fort Myers, Fla. Activities of the Tampa office, which is in charge of Herbert Munger, will include obtaining detailed data on landings of shrimp in the area, as well as the collection of general operating unit and catch statistics. Until permanent quarters can be located in Tampa, Munger will operate from Largo, Fla.

The Fort Myers office will be in charge of V. E. Hefflinger, who has a background of many years of commercial fishery work with the former Bureau of Fisheries as well as the Fish and Wildlife Service.

### Fishing Vessels Lost in Gulf

The shrimp trawler *Tocana* of Tampa sank in the Gulf 350 miles southwest of Egmont Key last month. Two



Dockside engine repair service being rendered a shrimp boat by Florida Diesel Engine Sales, General Motors Diesel distributors of Miami. With ship-to-shore telephones aboard, it is possible for fishing vessel crews to notify service stations in port of their needs and arrival time so that a service car can be on hand.

crewmembers were rescued as the trawler sank, by the *Miss Diane*, another Tampa shrimp boat.

Earlier in the month a snapper schooner, the *Oceanic*, owned by the American Seafood Co. of Pensacola, foundered a few miles from Dauphin Island at the mouth of Mobile Bay, with the probable loss of four crewmen. The vessel was in command of Capt. Jesse Fitzgerald of Pensacola.

### Marine Laboratory Studying Plankton

Little over a year ago the Rockefeller Foundation gave \$75,000 to the University of Miami Marine Laboratory to be used in investigating the farming possibilities of the sea. Dr. Hilary Moore was put in charge, and the crop he is particularly interested in is plankton.

The Marine Laboratory's 80-foot boat goes out periodically beyond the Gulf Stream, to a point 40 miles east of Miami where samples of plankton are collected for study. The kinds of plankton taken are identified and counted. Even the water from which the samples come is analyzed, and the amount of light at the various sampling depths is measured.

Dr. Moore explained that plankton are much like land plants in their needs for nutrients such as nitrogen and phosphate. When sea animals and plants die, they sink to the bottom to decay, beyond the reach of plankton which grows in the comparatively thin area near the surface of the sea where sun rays penetrate. Ordinarily the bottom of the sea is rich in nutrients and the water near the surface may be poor.

In the cold waters of the North, however, there is a constant exchange between the surface water and the bottom water. The upwelling brings with it nutrients from the bottom, and the result is a tremendous growth of plankton, the food of herring and other small sea animal life.

"In the tropics," Dr. Moore said, "the surface water remains constantly warmer than the water below and therefore there is no exchange of surface water and bottom water. There are a few exceptions, as off the west coast of South America."

Even in the nutritionally poor waters of the tropics, however, plankton is found in considerable numbers. But much of this plankton is small, and must be studied under a microscope. It passes readily through a seine made of the finest mesh, and can be collected only with the aid of filters and centrifuged. However, the scientists are attempting to invent new techniques for catching plankton.

The Marine Laboratory's plankton study will fill a number of gaps in man's knowledge of the sea. For instance, it might be possible to learn how much the migration of fish is influenced by the food supply. The next step in the University's plankton research is to grow plankton successfully in the laboratory.



Capt. J. F. (Sunny) Allen's 62' x 18' x 6' shrimper "Atascosa" of Aransas Pass, Texas. She is finished with International paint, and is powered with a 165 hp. General Motors Diesel with Columbian wheel. Gulf fuel and lubricating oil are used, and the shrimper is equipped with Surette batteries, Stroudsburg hoist, Bendix depth sounder, General Electric radiotelephone, Northhill anchor and Wall rope.

## Texas Planning Oyster Rehabilitation Project

Howard Dodgen, executive secretary of the Texas Game and Fish Commission, said that plans are almost completed on a program designed to rehabilitate the Texas oyster industry along the Gulf coast.

Experimental test plots will be set up in order to determine the most suitable areas for oyster cultivation. This work, according to Mr. Dodgen, will be supervised by C. W. Reid, Director of Coastal Fisheries with headquarters in the marine laboratory at Rockport.

Once an important part of marine production in Texas, the oyster yield dwindled for a number of years until in 1945 it was at an all-time low of around 29,000 lbs. of meats. Under expert supervision and planning by biologists at the Rockport laboratory, production started a comeback and last year 515,000 lbs. of meats were reported.

Most of the production comes from the north Texas Gulf coast, and was curtailed during the present fiscal year when oyster dredging was halted by the Commission in Galveston Bay as a conservation measure.

### New Shrimper Delivered

W. L. Hardee of Brownsville has received delivery of his newest shrimp trawler, the *Captain Mac*, which is a sister ship to *Captain Irish*, *Welchman* and *John O'Callaghan*. The new boat was built by Diesel Engine Sales, Inc. of St. Augustine, Fla.

A standard-type package trawler, the *Captain Mac* is 67 ft. x 18 ft. 6 in. x 6 ft. 6 in. She is of wooden-hull construction, and is powered with a D13000 Caterpillar Diesel delivering 150 hp. There is a 3:1 Snow-Nabstedt reduction gear and 3-inch Tobin bronze shaft with 48-inch by 44-inch Columbian propeller.

### Weather Cuts Down Shrimp Production

The period from January 20 to February 20 is generally considered a lax one for shrimp production in the Gulf of Mexico and along the Texas coast. This condition, coupled with very unfavorable weather including two severe cold northers and several unexpected tropical disturbances in the southwest Gulf, cut shrimp production to a minimum.

With bays and inland waters closed to large trawls and no white shrimp showing up close in along the coast, all production has come from south Gulf waters. Brownsville led other districts with 5,100 barrels. Port Isabel was second with 2,800 barrels, while Aransas Pass reported with 2,200 barrels.

Reports from Galveston and Matagorda areas were incomplete, with landings of 778 and 270 barrels respectively. Total shrimp landings for the period were 11,185 barrels, as compared with landings of 20,360 barrels the preceding 30 days, and 13,050 barrels for the same period in 1954.

Edible finfish production reported was 185,400 lbs. for the period, as compared with 106,780 lbs. for the previous 30-day period. Port Isabel led in fish landings with 145,000 lbs., and Galveston was second with 33,780 lbs. Black drum, red drum, speckled sea trout and red snappers were in good supply.

### Wants to Enlarge Freezer Facilities

Carl Halliday, superintendent of the U. S. Cold Storage Company's leased municipal freezer plant at Port Lavaca, is negotiating with the city for an extended agreement on the property. The firm proposes to make extensions and improvements to the plant, including a new building, 100 x 200 ft., with equipment which would double the present 100,000 lbs. daily freezing capacity, and would increase storage space from the present 750,000 lbs. to 5,000,000 lbs.

### "Oregon" Completes Tuna Cruise

The exploratory vessel *Oregon* completed a three-week trip February 1 in the western Gulf of Mexico. Nine long line stations between the Mississippi Delta and Tampico, Mexico, were tested with approximately 600 hooks to the set, and a total of 72 yellowfin tuna, weighing 8,640 lbs., were taken.

Bad weather hampered the tests, eliminating eight stations which were marked for fishing, and cutting down the hooks per set from 1,000 to 600. This is the ninth straight month that tuna have been taken in the Gulf in commercial quantities by the *Oregon*.

Texas fishermen are interested in the prospects of tuna fishing as a profitable way to fill in the lax period in shrimp catches during the late winter and early spring. With a few changes, the standard Gulf shrimp trawler could be converted into a tuna boat. Then, too, the tuna grounds are well within the cruising radius of shrimp trawlers from all Texas fishing ports.

The *Oregon* was to make a few tries for tuna on its next cruise, beginning February 22, when tests were to be made to determine distribution and concentrated areas of red shrimp known to be in the Gulf from 100 fathoms and deeper. Tests also will be made of the feasibility of continuous day and night dragging and of the relative effectiveness of light and heavy shrimp trawls and beam trawls. Data accumulated on this cruise will be used to make comparisons of the availability of shrimp on the northeast grounds with the availability shown by the results of later cruises over the deep-water grounds near Tortugas and elsewhere.

### Shrimp Boats Sink in Gulf

The shrimp boat *D. B.*, owned by Leonard Aloisiou of Aransas Pass, burned and sank off Galveston last month, but all three crew members escaped injury.

The Coast Guard reported last month the sinking of the shrimp boat *Joseph Anthony*, owned by Charles Gambrella of Alta Loma. The boat, being towed in by another shrimper because of damages, sank about 20 miles out in the Gulf.

### Shrimp Sorter Patented

A shrimp sorter that segregates the jumbo size from the little ones recently was patented by Joshua A. Lucius, Jr., and Wallace N. Merrick of Harlingen, Texas. The machine consists of a slanting cabinet in which are several sets of power-driven rollers, set longitudinally, and water jets. The rollers are stepped in diameter, with the smallest at the lower end. An operator dumps the shrimp in at the high end, and the turning rollers let through first the little shrimp, which exist through appropriate openings. The biggest shrimp do not pass until they get to the low end of the cabinet.

## Maryland Seeks More Funds For Oyster Planting

The Dept. of Tidewater Fisheries and Governor McKeldin are seeking more funds for oyster propagation in Maryland, which the fisheries department credits in a large measure for the increase in production this year. An additional \$50,000 is asked for the coming year over the \$250,000 spent during the present year.

In the period from September through January 554,950 bushels more oysters were taken from Maryland waters than during the same period a year previous. This is about a 30 per cent increase.

During 1954, 2,067,000 bushels of shells were planted, and this year a total of 250,000 bushels of seed are being planted and 2,500,000 bushels of shells. The shells will remain the same under the plan for next year, but twice as many seed will be planted.

### House Kills Rockfish Bill

The House of Delegates on February 25 rejected a proposal that no rockfish be caught in January and February. Actively supported by organized sports fishermen, the two-month ban which would have hit commercial catchers when their market price is highest, was thrown out by a vote of 62-34.

### Catch Record System Revised

As of January 1, a revised finfish catch record program was introduced to Maryland's fishing industry. Designed by the Maryland Departments of Tidewater Fisheries and Research and Education, the new record system will provide a more complete, more detailed and speedier inventory of the catch of commercial fish.

Under the new system, the fishermen have a revised record book requiring a report for each day's fishing, listing the pounds of each species of fish caught, water area fished and where the fish were sold. Monthly record sheets are to be returned at the end of each three-month period.

### Preparing Equipment for Spring Season

Lower Chesapeake Bay watermen have been busy lately painting their boats, sharpening their pound stakes and mending and tarring their nets, in preparation for the 1955 Chesapeake Bay fishing season which usually gets under way in March, depending on the weather. Icy conditions in the lower bay during the latter part of February were somewhat hampering and delaying the fishermen's plans to put out their pound stakes.

Haul seiners also are preparing for the season, and their hope is that herring, shad, hardheads, trout and other fish will be more abundant than for the past three years. The fish season, coming between the oyster and crab seasons, is a boon to the lower Eastern Shore.



The 44.6' x 15.5' shrimp boat "Captain Harry", owned by C. M. White of Darien, Ga., and powered with a 110 hp. Diesel.



The 55' "L. M. Buckson", left, and 47' "C. W. & S. Peace", oyster boats in fleet of Capt. Henry R. Buckaloo, Lewes, Del. The "Buckson" has 100 hp. Superior Diesel, Columbian propeller, RCA radio-telephone and Columbian rope. Power for the "Peace" is furnished by a Chrysler Royal engine, and the boat is equipped with Columbian rope and Columbian propeller.

### Appointed Head of Fisheries Commission

John P. Tawes of Crisfield has been named head of the Maryland Tidewater Fisheries Commission, following the resignation of Arthur H. Brice. Mr. Tawes has been a member of the Commission since 1951.

William F. Hilgenberg of Baltimore has been nominated to fill out the remaining two years of Mr. Tawes' term. Hilgenberg long has been associated with the seafood business in Baltimore.

### Clammers Protest Bill

The Chesapeake Bay and Tributaries Committee, headed by Delegate Tawes of Somerset, recently approved a bill that would restrict clam diggers to their own county. William Adkins, representative of the Soft Shell Clammers Assoc., claims the bill will virtually wipe out the business as it now exists.

There are 30 rigs in Queen Annes and five in Talbot, but most of the digging is done in Miles River in Talbot County. Adkins said there aren't enough clams in Queen Annes to occupy the 30 diggers residing there.

### Named Head of Biological Laboratory

Dr. L. Eugene Cronin has been appointed head of the Chesapeake Biological Laboratory at Solomons and director of the Maryland Dept. of Research and Education. He has been director of the Marine Laboratory of the University of Delaware for the last five years, and replaces Dr. R. V. Truitt, who retired in June, 1954.

## Georgia May Close Outside Waters To Shrimping Latter Part of March

Fulton Lovell, director of the State Game and Fish Commission, announced on February 10 that outside waters, consisting of waters beyond the sound limits, were open for shrimp fishing through March 22. He said the commission will review and consider whether to close or open outside waters again at that time.

### Named President of SeaPak Corp.

It was recently announced that J. Roy Duggan has been elected president of SeaPak Corp. of St. Simons Island. He has been general manager, vice-president and treasurer of this firm since it was organized in 1949.

Speaking recently in New York, Mr. Duggan stated that his firm anticipated that '55 would be the most successful year for the frozen seafood industry. He reported that there is considerable room for further growth, however, and said that only 52 per cent of American families are using frozen fish and only about 20 per cent use frozen shrimp.



## Alaska Fisheries Regulations Revised for 1955 Season

Revised regulations for the protection of the commercial fisheries of Alaska for 1955 do not change present rules governing operation of set nets. This is because an amendment to the Alaska Fishery Law, now pending in Congress, is intended to clarify the status of these nets.

A Federal Court decision in Alaska last Summer held that set nets are fixed gear. The Fish and Wildlife Service historically has classified them as movable gear. One effect of the court decision was to subject set nets to a statutory requirement which specifies that units of fixed gear must not be less than 1,800 feet apart, laterally. As movable gear, set nets in the past have been operated from 300 to 600 feet apart.

When the Fish and Wildlife Service reported that an 1,800-foot minimum interval between set nets is not considered essential to conservation requirements, and that imposition of the drastic limitation would place hardships on small fishermen, the Department of the Interior ordered action on new set net regulations suspended pending action by Congress. If this new legislation, which the Department will support, is enacted prior to the 1955 fishing season, no immediate change in the set net regulation will be necessary.

### To Continue Pink Salmon Restoration Program

The 2-year pink salmon rehabilitation program involving severe curtailment of the catch in southeastern Alaska and complete closure in Prince William Sound, which was launched in 1954, will continue in 1955. The Fish and Wildlife Service reports that the resulting escapements were much better last year than in 1952, the parent year of the two-year-cycle pinks.

In the Kodiak and Cook Inlet areas where the king crab fishery is relatively new, protection during the molting and soft-shell periods is necessary to prevent needless destruction of female and small male crabs. Therefore, a closed season on king crabs from January 1 to May 31 was imposed in the Cook Inlet area, and closures during soft-shell stages will be imposed in the Kodiak area as determined by direct observation.

Biological data obtained in 1953 indicated that there was a relatively strong incoming year class in the herring populations in southeastern Alaska. This permits the catch quota for 1955 to be increased to 100,000 barrels.

Other changes are as follows: In Bristol Bay size of the



The troller "Inca" which hails from Astoria, Ore., and is owned by Henry Bitkenen. She is shown coming into Newport, Ore.

fishing districts has been adjusted, reducing the Egegik district by about four miles, and increasing the Kvichak-Naknek district by the same distance.

In the Alaska Peninsula area the closing date has been changed from July 31 to August 5 in the southwestern and southcentral districts where improved pink salmon runs are anticipated. A limited set net fishery will be allowed in the southeastern district during the red salmon season, prior to July 5. To compensate in part for these relaxations, the weekly closed period has been lengthened from 60 to 72 hours prior to July 5.

In the Kodiak area, red salmon runs have not been good for some time and the June openings in these districts have been eliminated. The area will open uniformly on July 11 for pink salmon, continuing until August 13, with a one-week closure from July 23 to August 1. As in 1954, the week's closure may be rescinded if runs are strong.

In the Cook Inlet area, the usual odd-year closing dates of August 4 and August 8 are specified.

The Cook Inlet red salmon pack in 1950 reached a total of 207,000 cases, which is far above normal, but the escapements were poor and apparently this large pack was made partly at the expense of the brood stock. The 1955 run, which will be derived from the 1950 escapement, will be correspondingly smaller. Therefore, if the Alaska Fishery Law is amended prior to the opening season, some curtailment of the number of fishing days may be necessary.

Changes have been made in the Chignik, Prince William Sound, and Copper River areas, and also in the Yakutat area and the various gill net fisheries of southeastern Alaska.

## Oregon Tags Steelhead In Migration Study

Some of the mystery of steelhead migration in upper Columbia River tributaries may be cleared up by a fish-tagging operation conducted by the Oregon Fish Commission last month at McNary dam. Through cooperation of the Corps of Engineers, Fish Commission biologists were able to tag 464 adult steelhead which apparently had taken up residence in the upper pools of the Washington shore fishway.

Tip-off that steelhead probably would be in the Washington fishway came when 1,571 "homesteading" steelies were found in the Oregon shore ladder when it was dewatered for an annual check. Why some of the upriver-bound steelhead decide to hang out in fish ladders is not definitely known, according to Harry L. Rietze, Fish Commission biologist in charge of Columbia River investigations.

The Oregon biologist now hopes that recoveries of the McNary-tagged steelies will be reported in order to clear up some of the questions concerning steelhead migration above McNary. The opportunity to tag a large number of fish in a short period of time fits in well with an overall study of Columbia River steelhead migration which the Fish Commission has undertaken.

### Crab Fishing Improves

Crab fishing off the port of Coos Bay, which started inauspiciously this season, has improved. Production was near-normal last month, although far below last season's heavy production.

Prices to the fishermen, too, have climbed. The port's two major fisheries are paying 12 cents a pound for live crabs. Smaller quantities are being purchased at 14 cents a pound for a California buyer.

### Salmon Research Reviewed

Progress of research on the ocean life of salmon was reviewed last month at three public hearings along the Oregon coast. Members of the Oregon Fish Commission



Motor ship "Arctic Maid", which recently was impounded by Peruvian naval authorities for alleged violation of fishing regulations in Peruvian territorial waters. Making her first trip in the tuna fishery, the "Arctic Maid" was to be used as a freezer ship for a fleet of California seiners. She is skippered by Capt. Homer Kyros of Seattle, Wash.

discussed fin-marking experiments and other studies being conducted to provide information on salmon movement and abundance in the ocean. Progress of albacore tuna research work also was presented.

### To Remove Millicoma Splash Dams

State Fisheries Director M. T. Hoy announced recently that the Oregon Fish Commission has negotiated with the Cape Arago Lumber Co. of Empire, Ore. for the removal of five abandoned splash dams on the east fork of the Millicoma River in Coos County. The company has agreed to remove the splash dams as soon as water conditions will permit work in the area.

The dams were partially removed by burning soon after they were abandoned; however, after an inspection of the east fork area last month, members of the Fish Commission Engineering Division stated that the dams were still potential log jam sites.

Removal of the dams also would provide easier access for migratory fish to at least 20 miles of the Millicoma River system. Main species utilizing the river are steelhead trout, cutthroat trout, silver salmon, and fall chinook salmon.

### Harpoons Cow Shark in Log Dump

Richard Duncan, a boom man in the Coos Bay Pulp Corp. log dump north of Charleston Harbor in Coos Bay, recently spotted a huge fish in the log dump and harpooned it with his spike pole. The wounded fish swam into more shallow water. There Mr. Duncan looped a rope around its tail and hung the fish up on the log hoist.

Charleston fishermen identified the sea-beast as a cow shark. It was 16 ft. long and weighed about half a ton.

### Beebe Company Named Navicote Distributor

Navicote marine finishes are now being distributed in the Pacific Northwest by The Beebe Co., 504 S.W. 1st, Portland, Oregon, who recently was appointed distributor for the State of Oregon. The Navicote line is produced by Hart and Burns Co., Division of Devoe and Reynolds Co., Inc.

The Beebe Co. has been an established distributor of marine equipment since 1884, when Charles Beebe founded the company as a ship's chandler. Officers of the firm are: Scott L. Smith, Jr., vice-president and general manager; John Platt, vice-president; and Bryant W. Moore, assistant general manager. Graham Austin heads the Marine Department.

## California Fishermen Plan Tuna Cannery Co-operative

Plans for operation of a tuna cannery co-operative in San Diego are being pushed by members of the American Tunaboat Assoc. According to Harold Cary, general manager, about 40 boat owners have agreed to back purchase and operation of a plant. Enough boat owners have signed up, so far, to raise about half the needed capital of \$1,200,000. The Association, which is a marketing co-operative, has 120 members, all of them boat owners.

A committee, headed by Wade Ambrose, San Diego vessel owner and former packing plant operator, has approached the Van Camp Sea Food Co. which owns the now-idle West Coast Packing Co. plant in San Diego. It has a capacity of 125 tons a day.

The committee has been approached by the Star Kist Foods Co. for purchase of its High Seas Packing Co. plant on Pt. Loma. This plant has a capacity of about 130 tons a day.

By operating its own cannery, the Association hopes to add more working capital to the San Diego tuna packing industry and help avoid costly tie-ups which occur when local plants stop buying fish.

The cannery financing plan provides that each owner going into the venture will pay \$15 per capacity ton of his vessel, which means an average of \$3,750 per boat. Additional financing to cover full purchase price of a cannery and long-term operating capital will be obtained by a further assessment in which the owners would pay into the co-operative \$5 per ton for each ton of fish sold from their vessels during the next three years.

### Peru Seizes Tuna Vessels

At least six San Pedro fishing boats and two reefer ships have been seized by Peru this year for fishing inside Peruvian territorial waters without licenses. The purse seiner *Western Clipper* and the *Toni B.*, a large refrigeration vessel, each paid \$5,000 fines after they were seized in mid-January.

One month later the Peruvian navy rounded up six more American fishing boats and took them to the harbor of Talara under guard. They were identified as the *Miss Universe*, *Sea King*, *Marsha Anne*, *E. S. Lucido*, *Stanford* and the *Alaska Reefer*.

Subsequently two of the vessels were released, their papers reportedly found to be in order. The remaining vessels were released February 20 after assessment of a total of \$2,000, said to have been based on the Peruvian export tax on the fish they had aboard.

One of the vessels which was seized was the motor ship *Arctic Maid*, Capt. Homer Kyros of Seattle. The vessel was making her first trip in the tuna fishery.

Converted from a net tender in 1952, the *Arctic Maid* was to be used as a freezer ship for a fleet of smaller catcher boats. It had been arranged that 12 to 15 seiners out of San Pedro and Monterey would meet the ship in Peruvian waters and fish for it. The vessel has a capacity of 800 tons of frozen fish.

Capt. Kyros reported that special gear was being carried so that experiments could be made in gill-netting for small tuna. He also planned to do some long-lining, both from the ship and from 32 ft. motor boats which were carried on board.

### Bottom Fishing Expected to Improve

Bottom fishing operations during the past three months out of Eureka were slight, but company officials expect the situation to improve with better weather. Herring reappeared in Humboldt waters in January, but the fishermen take only enough for salmon or bottom fish bait.

### New Troller to be Launched

Preparations for launching the *Margie Ann*, a 36 ft. troller named after the wives of its owners, A. B. Moore and Orville Dawson of Brookings, Oregon, were under-

way last month at the inner boat basin at Crescent City harbor. Dawson and Moore are completing work on the boat which is to be launched soon with Crescent City as its home port. The design of the boat was by Hanson of Seattle.

### To Grow Oysters in Humboldt Bay

Oyster growing in Humboldt Bay was slated to get underway in Eureka the latter part of February when the first shipment of oyster seeds was expected to arrive. Capt. Walter Gray of the Dept. of Fish & Game said that the Norwegian ship *Borgholt* would dock at Fairhaven with 7,000 cases of oyster seed.

Four thousand of the cases are to remain in Eureka for the Van Camp Sea Food Co., which expects to plant the oysters in the north bay off the Humboldt coast, and eventually market them in cooperation with the Coast Oyster Co., a subsidiary of the Van Camp concern. An additional 1,500 cases will go to the Van Camp interests by truck to Drakes Bay, and the remainder to the other dealers in the Bay area.

The oysters, which were ordered from Japan, were inspected there by a biologist from the United States.

### Salmon Trollers Appoint Committees

Committees to handle the various functions of the Salmon Trollers Marketing Assoc. at Noyo were appointed recently. In charge of publicity, education and the furtherance of the better fish program will be F. Makela, chairman, assisted by A. Urbani and L. Price.

A committee responsible for managing the association's finance includes E. Baker, chairman, aided by H. Peterson and M. Hainer. P. Lackey was named chairman of a committee designated to obtain market orders for the members' produce.

### Price Agreement Reached

Mackerel and anchovy prices for 1955 were agreed upon by seven cannery, 50 boat owners and hundreds of fishermen in mid-February, after more than two months of negotiations. The prices: \$45 a ton for Pacific mackerel, \$42.50 for jack mackerel, and \$25 a ton for anchovy.

Included in the new price contracts is a provision that requires a cannery that starts accepting fish in any particular month to continue accepting fish until a certain tonnage is reached. This tonnage is based on an average of 150 tons per boat operating for that cannery.

### Crab Season Poor

Rough weather and a scarcity of crabs have resulted in a poor season at Eureka. Local boats are crab fishing the area from Eureka to Trinidad. A few have gone to Crescent City where better catches have been reported.

### Fishing Boat Lost on First Mackerel Trip

The first night of mackerel fishing this year for the 50-ft. fishing boat *Thelma Kay* was a fatal one. Returning to San Pedro with five tons of fish aboard, the craft ran into rocks in the fog and sank, a complete loss.

Skipper Frank Scognamiglio and six crewmen took to their skiff and were picked up and returned to port by the *Santa Maria*.

### Research Vessel Back in Operation

The fisheries research vessel *Black Douglas* has been assigned to operate out of San Diego by the Fish & Wildlife Service, after being laid up for two years. She will operate with the fleet of oceanic research vessels owned by the Scripps Institution of Oceanography.

The *Black Douglas* will carry on studies of jack mackerel, sardines, anchovies and other fish.

### Two Fishing Vessels Wrecked in Storm

A windstorm which swept over the North Coast of California recently left two wrecked boats at Trinidad. Crushed against the rocks were the 30-ft. crab boats, *Black Dragon*, owned by Wilbur Sparks and *Slab*, owned by Otto H. Kraasch.



Cottardo "Monk" Loero, manager of General Fish Corp., Monterey, Calif.

## Washington Bill Would Extend Closed Areas

Divergent views were expressed at a hearing February 8 on a Washington State legislative bill to extend areas closed to commercial fishing at the mouths of the Snohomish and Skagit Rivers. Gill-net industry representatives termed the bill unnecessary, while spokesmen for sports groups, salmon cannery and purse seiners said the measure was vital as a conservation step.

Joe Burrows of Everett, president of the Puget Sound Gill-netters' Assoc., warned the bill would work a hardship on gill-net fishermen. Howard Gray of Seattle, a director of the Washington State Sports Council, said the gill-netters could fish outside the restricted zones. However, Keith Wyman, a LaConner fisherman, said the bill would put between 40 and 60 LaConner gill-netters out of business.

Milo Bell, technical coordinator for the State Dept. of Fisheries, explained at the hearing that the new bill attempted to designate closed areas where salmon school for several days before migrating upstream. The proposed legislation also would provide that department directives which have established 15 other sanctuaries would become law.

### Wants Oyster Growers Classified as Farmers

Claiming that oyster growers are farmers, not fishermen, Washington State Sen. Theodore Wilson of South Bend recently advocated the enactment of state legislation to classify them that way.

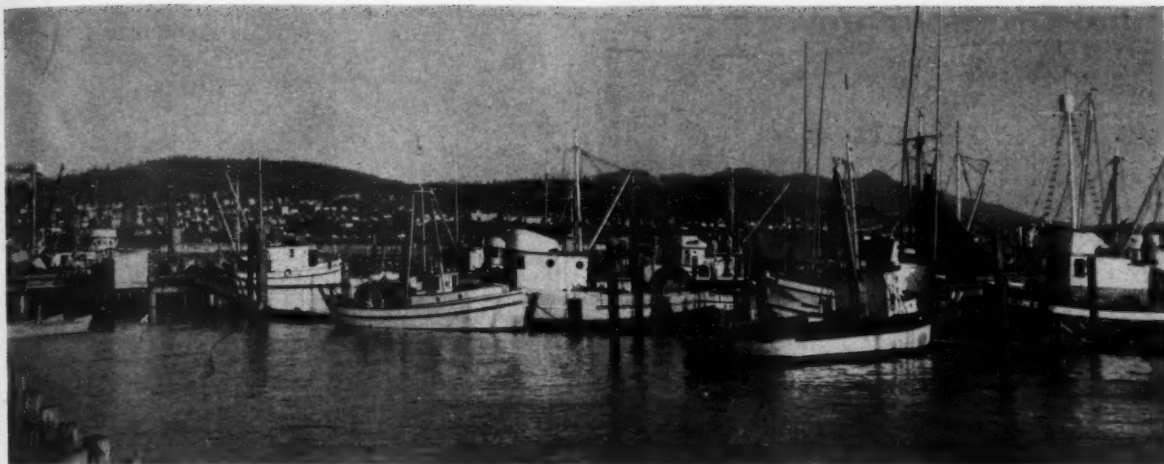
Wilson believes Washington's \$4,000,000 oyster crop would benefit more if tied in with agriculture rather than being lumped with the fishing industry. Wilson is especially concerned with the matter because his district embraces some 70 per cent of the state's oyster crop.

### Seek Extension of Trade Agreements Act

Three trade associations, representing 95 per cent of the U. S. salmon canning industry, have asked Congress to extend the Reciprocal Trade Agreements Act. Meanwhile, Pacific Northwest fisheries unions have joined in protesting against proposed reduction of tariffs on fish imports from Japan and other countries. Unions joining the protest included the Alaska Fishermen's Union, representing 5,000 independent fishermen, and the Seafarers' International Union, representing another 5,000 American Federation of Labor fishermen.

The trade associations—Alaska Salmon Industries, Inc.; Association of Pacific Fisheries, Inc. and the Northwest





Salmon purse seiners at Bellingham, Wash.

Salmon Cannery's Assoc.—sent a telegram to the House Ways and Means Committee, which was holding hearings on the tariff question. The telegram said 165 canneries in Oregon, Washington and Alaska employ about 40,000 persons and represent an investment of about 140 million dollars. It pointed out that the present 15 per cent tariff permits the importation of canned salmon at a profit, as cost of production in Japan and Canada is considerably less than United States production costs.

### Building Seiner and Gill-netters

An Alaska limit seiner for Martin Tomich of Bellingham and two 35' wood gill netter hulls are being built by Marine Construction and Design Co. of Seattle. Stock "Steelskifs" in 16, 18 and 19-ft. lengths also are under construction.

The firm is now in its third year of operation and is continuing to expand its facilities. A unique feature is its vertical lift drydock and sidetracking system which allows the yard with its one drydock to handle as many as thirty boats at a time, not counting the boats that are having dockside repair alongside the floating machine shop.

When Marine Construction went into business, it acquired the Akervick Bros. Machine Shop and has continued to make Akervick trolling gurdies and other items of mechanical equipment for the fishing fleet. The Company has been active in the development of purse seine reels, including engineering for each individual application, steel fabrication of components, machine shop manufacture and carpenter and machinist work necessary to install the equipment. An outstanding purse seine reel installation by the firm was that on Hans Mikelson's *Tradewind*.

Among the personnel of Marine Construction and Design Co. are Peter G. Schmidt, Jr., president; Don McVittie, mechanical engineer, who spent much time with the seining fleet last summer and is in charge of the commercial fishing equipment for the Company; Jim Peterson, general superintendent; "Jorgy" Jorgenson, machine shop superintendent; and B. F. Jensen, Chief Engineer, who is also in charge of new construction in the wood boat building program.

An associated firm, North Coast Marine Engine & Equipment Co., (Norco), which is a distributor of Cummins marine Diesels, has extended its facilities to Alaska, with the establishment of service and sales at Ketchikan in charge of Don Nafziger.

### Salmon Marking Program

The State of Washington Fisheries Dept. plans to mark all the young salmon in its hatcheries this spring, in an unprecedented program to trace the ocean movements of Washington-reared salmon.

Millions of young salmon will be marked by fin clips, dividing them into different groups for release at various points along the Columbia River. The experiment will test the homing instinct of the fish and the relative effectiveness of the different fish release points.

### Fishermen's Cooperative Elects

Adam Kanzler has been re-elected president of the Fishermen's Cooperative Assoc. in Seattle. Harry J. McCool, vice-president and Bert Johnston, secretary, also were re-elected.

Elected to the board of trustees for three years were Kristian Kyvik of Aberdeen and Henry Parpart of Seattle. Dan Hjort was re-elected to the board.

### Patrol Boat Launched

A new fisheries patrol boat, slated for use at Westport, Wash., was launched at Tripple & Everett Marine Ways, Inc. in Seattle on February 14. The 36-ft. craft was christened as *Patrol Boat No. 1*, and will be in command of Hans Schmidt.

The craft has a beam of 10 ft. 10 in., and a draft of 4 ft. She is powered by a 4-71 General Motors Diesel and cruises at 12 knots. The boat has all modern electronic equipment, including a Bendix depth recorder.

### Clam Quota Set

The Washington State Fisheries Dept. announced that the 1955 commercial clam quota for the Grays Harbor region, around Copalis and Ocean City, will be between 400,000 and 500,000 lbs. This will be the only region open to commercial digging on the Washington coast, except for spits near the Willapa Harbor entrance.

### No Major Changes in Halibut Regulations

Halibut fishing quotas in the North Pacific will remain virtually the same as last year. The season will open May 12, the International Pacific Halibut Commission announced, with only minor variations from the 1954 seasonal and boundary regulations.

The Commission held its annual meeting recently in Seattle, and elected Richard Nelson of Vancouver, B. C. as chairman, to succeed Edward W. Allen of Seattle. Seton H. Thompson of Washington, D. C., was named vice-chairman.

### Seattle Landings for February

Landings in the Seattle otter trawl fishery were nearly a million pounds heavier in February than in the previous month. The catch totalled 2,084,400 lbs., which was brought to port in 73 trips. Leading varieties again were true cod, with a yield of 1,173,200 lbs., and English sole, with 337,500 lbs. The fleet landed 279,300 lbs. of fish on the 23rd of the month, making this the biggest day.

## Fluid Drives Improve Trawl Winch Operation On Fishing Boats

THE fishing industry, ever-progressive in its search for better application of horsepower, is adopting fluid drives on more and more of its powered equipment. As a result, power transmission problems inherent with mechanical drive are being solved. The fluid drives, by eliminating mechanical connection, effectively cushion out the shock loads, vibrations, jams, jerks and torsional variations. In addition, the strains and stresses of excessive starting loads are removed, and the demands of sudden variations in running loads are automatically compensated for by the fluid.

Among the fluid drives in wide use throughout the fishing industry are two types manufactured by the Twin Disc Clutch Co. of Racine, Wisc. and Rockford, Ill. They are the Twin-Circuit Fluid Coupling, applicable for gasoline or Diesel engines, and for electric motors, from  $\frac{3}{4}$  to 850 hp.; and the Three-Stage Hydraulic Torque Converter, applicable for gasoline or Diesel engines from 40 to 650 hp. Both are in use on winches, windlasses, and other types of hoisting equipment. Fluid Couplings also are being applied to engine- and motor-powered conveyors and other materials-handling equipment, and are in wide use as an incorporated feature in Twin Disc MGH-340 Marine Gears.

Basically, the Fluid Couplings are selected for installa-

Close-up of Twin Disc Torque Converter which was installed to solve a winch-powering problem in the Boston, Mass. trawler "Brighton", owned by Irving Usen Trawling Co. The converter automatically overcomes strains and shock loads from roll of boat, pull of sea, and weight of catch.



tions which start under medium loads, and where changes in the running load permit time for proper gear selection or load adjustment. The Fluid Coupling does not multiply torque, but delivers the input torque of the engine or motor 100% to the driven equipment, with a 1:1 ratio. Thus the advantage of this type drive is derived from the "slip" of the fluid within the pump and turbine blades, providing the cushioned-drive effect.

### Heavy Starting Loads

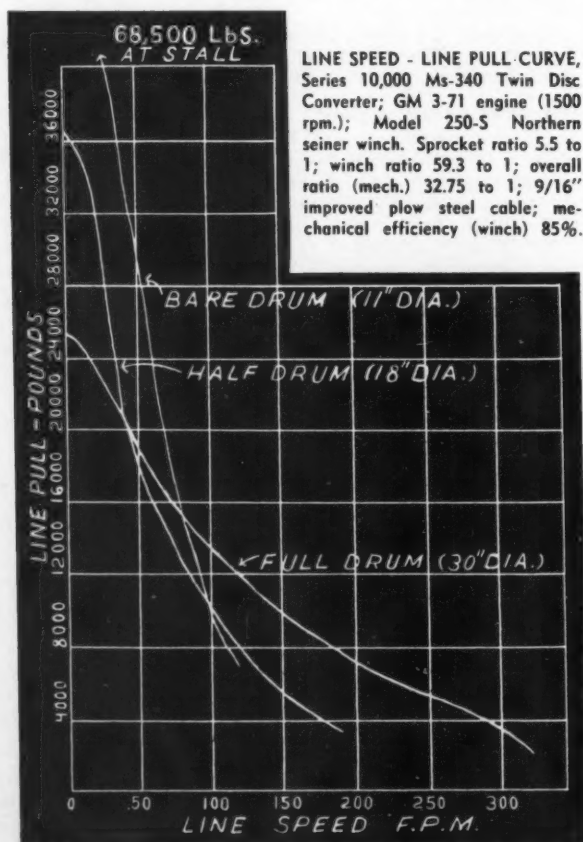
Three-Stage Hydraulic Torque Converters are selected for installations which involve extremely heavy starting loads, and frequent and heavy running load variations. The Twin Disc Three-Stage design provides high multiplication: up to 6 times the input torque of the engine when the load is at stall. In addition, it provides all the cushioned-effect of the Fluid Coupling.

On conveyors, hoists and other similar types of equipment, Fluid Couplings permit selection of motors and engines on a basis of running requirements, in many instances, instead of for starting requirements. Where compounded drives are used, they improve the distribution of the load, permitting each motor to seek its own operating speed.

The Twin Disc MGH-340 Marine Gear, Fluid Coupling Drive—by eliminating mechanical connection—dampens engine torsional variations and propeller shocks, and cushions the shift from forward to reverse. The result is a quieter, smoother operation, providing longer wear-life for both engine and drive train.

A typical example of the benefits derived from torque converters in the fishing industry is on trawl winches. Here, with mechanical drive, a definite problem exists in the form of extreme load increases as the boat rolls in heavy swells. Unless the engine is very large for the job, lugging and stalling frequently occur. However, it is claimed that with the Three-Stage Torque Converter, smaller engines can do the job with no difficulties.

The high torque multiplication automatically picks up the extreme load increases, permitting the engine to operate smoothly within its governed rpm. range. Lifting the net is also faster and steadier, through the infinite variety of ratios provided by the torque converter.



Graph showing operating performance of Northern seiner winch driven through Twin Disc Torque Converter, which automatically varies line pull to handle load changes at any throttle setting, whether changes are from direct shifts in strain on gear or from motion of the vessel.

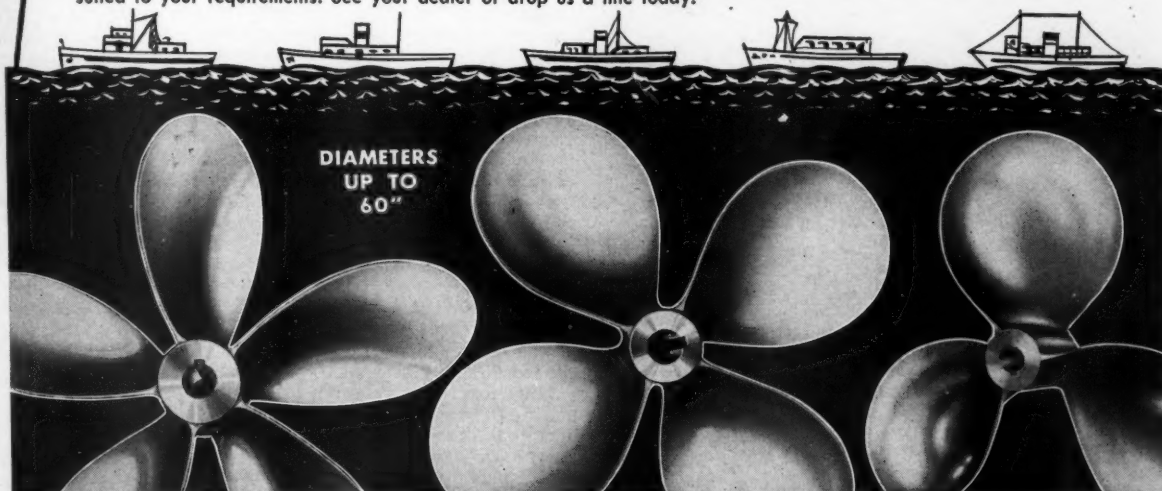
## Story on Maine Lobster Industry

Maine's lobster industry, the people who pursue it and the annual Seafoods Festival at Rockland are featured in the March issue of *International Trail*, nationally-circulated publication of International Harvester Co.

The four-page story is illustrated by striking color and black-and-white action photographs made by Kosti Ruohomaa, Rockland photographer. One of his color views, which shows a lobster buyer's dock and fishing vessel on Penobscot Bay in Rockland, occupies the magazine's cover. Sequence views show virtually every phase of lobstering.

## HERE'S THE WAY TO GET THE MOST FOR YOUR PROPELLER DOLLARS

It's as simple as this: Ask your Michigan Wheel Dealer or write to us for a Propeller Analysis Form and let our engineers, entirely without obligation on your part, expertly recommend the propeller that's best suited to your particular craft and power plant. It pays in many ways: More speed, less fuel, elimination of the vibration that ruins hulls and fittings, and the far longer service that MICHIGAN'S famous "MICHALLOY-K" metal provides. The MICHIGAN line is COMPLETE. It contains the wheel EXACTLY suited to your requirements. See your dealer or drop us a line today.



**MICHIGAN WHEEL COMPANY** GRAND RAPIDS 3, MICHIGAN

### Long Island Cod Being Caught In New Type Gill Net

Capt. Dick Hamilton of East Moriches recently has been experimenting successfully with gill-netting cod off the Long Island coast.

He designed the net himself and set it out early in November. The first "set" resulted in an extra heavy catch of dogfish. While the quality of the haul was not desirable, the fact that the net caught fish was encouraging. Subsequent sets proved that the net was efficient, and when it was placed in the right area, codfish and other edible species were caught.

According to Capt. Hamilton, who fishes out of the newly-opened Moriches Inlet, the possibilities of the anchor gill net are great, and he expects to continue experimenting with the net on various species. The net is made up of different mesh sizes which permits the escapement of the smaller, unmarketable fish.

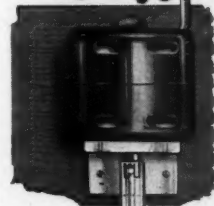
While many types of gill nets are now in use, the "Hamilton Gill", as it is called, is new in design. It is said that cost of the net is not prohibitive.

### Fishery Landings for November

The New York production of commercially-caught fish and shellfish in the Marine District during November, 1954 amounted to slightly more than three million lbs. valued at \$584,700 to the fishermen. There were no landings of menhaden due to the usual termination of this fishery in October. Scup or porgy (679,200 lbs.), valued at \$40,800, led all other food fish produced. Cod, surf clam meats and whiting were also good producers.

Total landings of all species for the 11-month period ending with November amounted to slightly over 133 million lbs., with a value to the fishermen of nearly 7.2 million dollars.

### NEW TYPHOON POWER BILGE PUMP



**Radically Different—Automatic  
100% Non-Corrosive—Non-Clogging**

Dependability, durability—the only ALL-LUCITE bilge pump! Unique design takes motor right out of the bilge—no spark can ignite dangerous fumes below.

#### Runs for Months Without Servicing

Lucite screen many times larger than ordinary pumps—practically impossible to clog. No close or fussy alignment. Lifetime oilless, friction-proof shaft runs on glass bearing. Big capacity—pumps 600 gallons per hour (4-in. size 300 gal.). Even running dry will not injure the pump.

Sudbury's **TYPHOON** is so accessible, so simple you can quickly and easily remove motor, drive shaft, even the impeller of pump itself. Diagram at right shows pump disassembled in 30 seconds, no tools!



Made for 6, 12, 32 or 110 volt systems. Standard drive shaft 2 ft. long; can be supplied up to 6 ft. without extra charge. **Fully Guaranteed.** For manual operation, 4-in. \$39.95; 6-in. \$49.95.

With Automatic Switch, add \$10.  
See your dealer today or write direct.

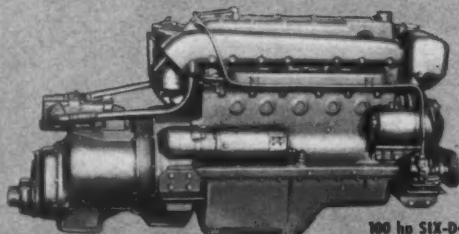
Dealers: Write **SUDBURY LABORATORY**  
for Special Offer Box 932, South Sudbury, Mass.



# MORE WORKING HORSEPOWER ... NO DEADWEIGHT! GRAYMARINE DIESELS

30 hp 50 hp 100 hp 135 hp

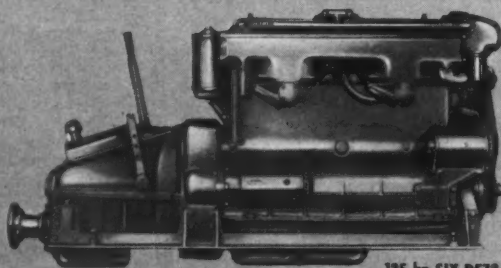
THESE ARE CONTINUOUS DUTY RATINGS



100 hp SIX-D427  
Weight 1475 lbs.

Workboat owners will be particularly interested in Gray's four-cycle Diesel SIX-D427, rated 100 hp at 2200 rpm and weighing only 1475 lbs.

Originally developed for and extensively used by the U. S. Navy, this fine Graymarine Diesel reflects the know-how achieved in Gray's sixteen years' experience in manufacturing Diesel marine engines.



135 hp SIX-D572

The streamlined SIX-D572 is similar in design and general appearance to the lightweight 100 hp Graymarine Diesel, and is rated 135 hp at 2200 rpm. Small Gray models include two 4-cylinder Diesels of 30 and 50 horsepower.

## DIESEL ENGINES

Four cycle. Horsepower figures are continuous service ratings. Weights include reduction gear.

	HP	RPM	Piston Displ.	Weight (Lbs.)	Length (Inches)
Four-D157	30	1800	157	1100	50
Four-D260	50	1800	260	1400	55
Six-D427	100	2200	427	1475	67
Six-D572	135	2200	572	2510	72

GRAY ALSO BUILDS GASOLINE MODELS—16 to 200 hp

# GRAYMARINE

710 CANTON AVENUE • DETROIT 7, MICHIGAN  
SUBSIDIARY OF CONTINENTAL MOTORS CORPORATION

## Fishing Restrictions

(Continued from page 18)

the causes for a fishery's decline. If the decline results from causes other than overfishing, the reason for restricting the fishing effort disappears.

While there may be no general acceptance of the principle, it is interesting to note that in 1953 Dr. A. G. Huntsman said, "There seems to be no good basis for restricting fishing in order to increase the long term yield." In an area where clear scientific opinion becomes so vital and where substantial disagreements prevail, it is dangerous to conduct experiments that obviously must have serious economic consequences.

Tampering with an industry and the livelihood of the people in it is a serious business. It can only be justified where a clear and concrete necessity for it first is found. Adequate scientific research of the fishery sought to be managed must be an indispensable prerequisite.

It is the commercial fishing industry which has sought most of the fishery research programs now under way. In some cases it is the industry which pays for the research directly through taxes on itself. Such is the case of the cooperative research program on sardines and other species being carried on in California. Unfortunately in the last decade research work on particular stocks of fish has commenced after the fish had "disappeared." This pattern, however, is changing.

The cooperative research program in California, geared principally to the study of the sardines which already had declined when the program was commenced, is now also studying other stocks of fish where no so-called "danger signs" are apparent. On the international scene the Inter-American Tropical Tuna Commission is doing likewise with tuna.

Management of a fishery is usually viewed in a negative sense; that is, it is viewed as a restriction on the fishing effort in the expectation that such a restriction will yield a greater long-range return. Actually management could just as well mean an effort to expand the fisheries by affirmative methods. It is not outside the realm of possibility that expansion of the ocean fisheries can be obtained by transplanting of fish from one area to another. While this is presently economically unfeasible, our generation may still see it.

A very interesting experiment in this regard is taking place in the Gulf of Nicoya where transplanting of anchovetas from Panama is being done under the auspices of the Inter-American Tropical Tuna Commission. While it is far too early to say that this is a practical way in which to replenish a declining fishery, the results thus far are encouraging.

## Value of Timely Research

The importance of adequate ocean fishery research cannot be overemphasized. If it is timely begun and properly carried out, it should reveal the need or lack of need of restricting the fishing effort and should dispel most of the scientific disagreements. In addition, such research could provide the vehicle for the discovery of new or latent fish stocks which can be utilized commercially. From the fisherman's standpoint, these new fisheries would help to replace those in which he might be required to practice restraint as a result of legitimate restrictions.

The timeliness of research is important. One of the best ways to determine the causes for a decline in a fishery is to be possessed with an abundance of information regarding the fishery when it was at its peak. The comparison of conditions obtained from early research with the situations present at the time of decline will reveal much that may not otherwise be discovered if research is started too late.

Intimately linked with the matter of research is another factor which appears in many ill-advised management programs of a pelagic fishery. This is the proposal to completely close such a fishery to all but sport fishing

activity. Aside from the discriminatory features of this, an important element touching on research develops here.

In order to properly evaluate the condition of such a fishery and to note changes in such a condition, much of the necessary information must be acquired from a continuing commercial operation. Researchers would need as many research vessels as there are commercial vessels operating to know and properly evaluate the relative availability and abundance of pelagic fisheries. The best, and probably the only way, to determine how much fish is in the ocean and where it is, is to permit commercial fishermen to seek it out. A complete closure of the fishery would prevent this and there are very few, if any, cases where fishing cannot be permitted to continue even if it is necessary to limit the take.

#### Restrictions Can Encourage Foreign Competition

A further reason for the exercise of extreme caution before conceding to fishery management in a questionable case lies in the fact that a restriction on a domestic fisherman could create strong and permanent foreign competition. A case in point is the California sardine fishery. The California sardine is equally available to the California fisherman and to the Mexican fisherman operating out of Lower California. The fish found in both areas belong to the same population.

Assume that California should find it necessary to restrict the fishing effort on sardines and adopts measures limiting the activities of California sardine fishermen. This would most assuredly give an impetus to the sardine industry in Lower California which would result in its gaining such a competitive foothold that it never could be dislodged. At the same time, California's management program would be rendered ineffective because the Mexican fisherman would be unrestricted and would draw upon the identical fish population which was sought to be protected. Management of such a fishery would therefore obviously require the action of both Mexico and California (as well as Oregon and Washington where the same sardines also touch) before such control could be effective.

#### Economic Impact of Regulations

Not the least among the additional reasons for caution and careful scrutiny of proposed restrictions is the tremendous economic impact that limitations can have on the industry. As a result of restrictions the fisherman will catch less fish and unless he is able to compensate for this by an increased price for his product, he soon must leave the fishery. But today where the choice of foods is still ample and where the consumer is largely a price-conscious buyer, the possibility of price increases on fish is limited.

The price problem is further aggravated for the fisherman, in some instances, because despite the fact that he may be catching less fish, either because of natural declines in the fishery or man-made restrictions, he nevertheless cannot raise his price but must, in fact, lower it because foreign competition must be met on that particular fishery product.

Still further reason for a fisherman's caution is the fact that although he will generally accede to scientists' opinions and recommendations when there is no disagreement among them, he feels that because of his continuous experience he knows more regarding the forces of the ocean than the usual layman who is a plaintiff for restriction. When scientists disagree or remain silent the fisherman rightfully considers that his opinion on the possible causes of fishery decline should be given more consideration than those of the apologists for control. He is not without merit in this contention.

For many years the California pilchard fisherman explained the "disappearance" of the sardine in terms of the shifting of currents. His statements were scoffed at by the apostles of restriction. However, the latest published report of the government agencies investigating the causes for the "disappearance" of the California sardine devoted considerable length to the effect of currents on the strange antics of this species.

(Continued on next page)

## NOW... UP-TO-DATE **LORAN** at Practical Cost!



## EDO Direct-Reading **LORAN**

Now you can have the most modern Loran equipment at lowest cost ever... for time-saving, fuel-saving navigation accuracy. The new model 262 Edo Loran gives you quick, directly-read position indication with no complicated calculating. Designed by Edo, famed builder of Navy Sonar, underwater detection gear and other marine electronic equipment of highest possible quality.

#### You Want These Superior EDO Features

- Only 26 tubes including cathode ray tube and rectifiers. Means far simpler servicing.
- Single, compact, light-weight, self-contained unit.
- Lower power consumption: 150 watts, 115 volts @ 60 cycles.
- The unit can be mounted on table, overhead or bulkhead.
- Large direct-reading dials especially illuminated for night use. Recessed CRT requires no hood.
- Delay is not stored and cannot drift.

Send for the new brochure on the Edo  
Model 262 Loran

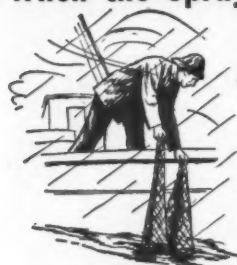
#### Find FISH FASTER with EDO FISHSCOPE!

Finest electronic fish finder available. EDO FISHSCOPE locates schooled fish on cathode ray tube, multiplies view 20 to 40 times. Don't be satisfied with less than the best. Increased hauls prove FISHSCOPE's superiority. Write for brochure.



**Edo CORPORATION**  
College Point, L.I., N.Y. SINCE 1925

When the spray is like needles



...KEEP DRY

Vulcanized seams—to make the whole garment waterproof. Specially developed compounds provide greater resistance to sun, water and abrasion.



#### U. S. SAFE AND SEINE SUIT

- strong heavy-coated fabric
- vulcanized waterproof seams
- full-length jacket
- inside fly front
- corduroy-tipped collar
- rust-resistant ball and socket fasteners
- large bib-front overalls
- adjustable suspenders
- short length for wear with boots

#### U. S. SQUAM HAT

- reinforced water-shed brim
- made plain or with head lining, ear flaps and chin strap



#### U. S. RUFF-N-TUFF EUREKA SUIT

- strong heavy-coated fabric
- vulcanized waterproof seams
- full-length jacket
- inside fly front
- corduroy-tipped collar
- rust-resistant ball and socket fasteners
- bib-front overalls, elastic suspenders
- cut-off band permits shortening without curling or raveling

#### TRAWLER BOOTS

- Black thigh
- Felt lined
- "Fin-Guard" vamp

**U. S. INDUSTRIAL RAYNSTERS®**  
**U. S. ROYAL RUBBER FOOTWEAR**



SOLD ONLY THROUGH INDUSTRIAL AND RETAIL STORES

**UNITED STATES RUBBER COMPANY**  
ROCKEFELLER CENTER • NEW YORK

(Continued from previous page)

A series of possible approaches to solution of the fisheries management problem are suggested. First, industry should press for and support timely and adequate research of the ocean fishery. It should insist on having a say in the research pattern to be followed.

Second, it is suggested to industry that one of the foremost reasons for the difficulties it has had in resisting rash restrictive legislation is that for the most part the proponents, the public, and even large segments of the industry itself are uninformed as to the proper objectives of management, when it is needed, and when it should be justifiably opposed. This throws on industry the burden of keeping itself informed and through aggressive public relations informing others interested.

Third, the matter of the high principle involved in fishery legislation should be more keenly felt by the industry. In this regard it must not attempt to isolate its problems to separate interests within the industry, within the state, or within the nation. A needless restriction imposed upon a fisherman is not the fisherman's problem alone. It creates an abundance of dangerous precedents which are later pointed to justify new and equally harmful restrictions. The processor usurps no authority when he feels it necessary to take the lead in the defeat of such legislation even though it may not be designed primarily against him nor have an immediate effect on his interests.

In this same regard it might be added that industry should not rest upon a resolve to vigorously oppose future unnecessary restriction but should unite in its efforts to repeal hurtful and unnecessary restrictions now on the statute books.

Lastly, while it may be extremely difficult to do so, industry should constantly strive in the direction of lowering the cost of the production of raw fish. Doing this will provide some necessary economic relief when the industry must limit itself in the interests of legitimate fishery conservation.

## Great Lakes Fishermen Having Exceptional Smelt Season

Great Lakes commercial fishermen, aside from their catches of trout, whitefish, chub, perch, herring and pike, have been hauling in lake smelt by the tons and getting in most quarters a minimum of 5 cents a pound for their takes. In the Green Bay area, Escanaba, which has been called the smelt capital, is living up to its reputation.

Commercial smelt netters operating on Bays de Noc, as well as in other adjacent areas, are hauling in the little silvery fish by the tons. State institutions have been contacted to buy smelt, and thousands of pounds have been sold to them.

The Schultz Fishing Co. of Escanaba, Mich. has about 30 women at work processing smelt. Griffin Fisheries Co., Milwaukee, Wis., has a sizable crew processing these fish also in Escanaba, and the Gladstone Canning plant near Escanaba is busy processing fish.

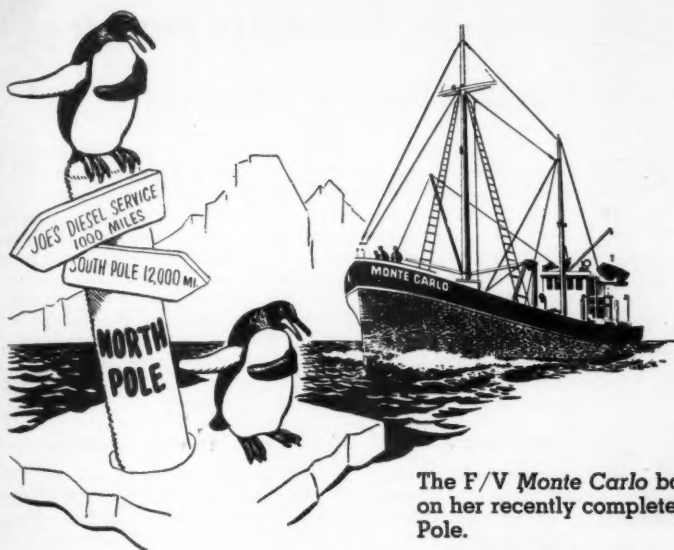
Jensen & Jensen, Escanaba, one of the largest distributors and retailers in northern Michigan, has been purchasing 10,000 lbs. of smelt daily from fishermen. Large canning companies are getting into the act, but the supply of smelt is actually outrunning demand and new markets for the fish are being sought.

At Menominee, Marinette, Washington Island area, Sturgeon Bay and Manistique, good catches were reported. Green Bay fishermen also were getting perch, chub, carp, whitefish and a few pike.

On Lake Winnebago, just west of Green Bay, good yields of walleyes were being taken, but best catches were in sturgeon with numerous large sturgeon being taken daily. Many good sturgeon catches also were made in the Cheboygan, Mich. area, in ice fishing operations.

On Lake Superior, Bayfield, Wis. netters were operat-





# B&W Alpha

**There are no service stations  
at the North Pole  
Nor In The Middle Of The Ocean**

The F/V *Monte Carlo* battled arctic ice, hurricanes, and rough seas on her recently completed scientific expedition to the Magnetic North Pole.

Capt. Wilbur E. Dow, Jr. states: "The B & W ALPHA Diesel engine and controllable pitch propeller demonstrated their ruggedness and dependability to my complete satisfaction throughout our successful 8,000-mile trip".

The advantages of the B & W ALPHA unit can also be yours at a competitive price.



Write for details

**BURMEISTER & WAIN AMERICAN CORPORATION**

**17 Battery Place, New York 4, N. Y.**

ing in open water for lake trout and whitefish with fair catches. In the bays, however, which were covered with ice, ice operations brought good yields of lake trout for bobbers. In the Ontonagon, Eagle Harbor, Hancock, Chassel and other nearby ports, fishermen were making fair landings of trout and whitefish.

At Marquette, Mich., local producers were gill-netting in open waters, despite the floating ice fields, and filling commitments for trout and whitefish. At Munising, the bay was just starting to freeze over and local fishermen were still attending open water nets with light production. At Grand Marais, Mich. and at Whitefish Bay in eastern waters, takes of lake trout and whitefish were light but fairly consistent.

At Milwaukee, Wis. and Waukegan, Ill., ice halted fishing tugs. The first ice formation in the outer harbor of Milwaukee in 20 years caused the fishing tug *Sally Lou* to give up efforts last month to leave the harbor. The *Sally Lou*, owned by Roy E. Nelson of Milwaukee, tried to follow car ferries out of the harbor.

The *Lester H. Smith*, Capt. Allen Cornell, was stranded near Sheboygan, Wis. breakwater after another more powerful tug, the *Ida S.*, failed to jar her free on February 4. The *J. B. Nelson*, a fishing tug owned by Leonard Nelson of Sturgeon Bay, was freed from Sturgeon Bay canal after the crew spent the night on board stuck in ice.

In the Straits of Mackinac area, ice fishermen were enjoying nice perch catches in the Moran Bay perimeter. St. Ignace, Mich. fishermen were taking sizable smelt hauls east of the town, while small operators from Traverse Bay and Sheboygan, Mich. were getting good commercial quantities of smelt, herring, perch, and some whitefish.

Saginaw Bay producers in the Lake Huron area were getting good catches of perch, smelt, some herring, pike, and mixed fish, while the island fishermen in northern waters of the lake found ice fishing for smelt in bays paying off.

Commercial ice fishing on Lake Erie, generally, is

about normal, with greatest activity observed in the Put-in-Bay area.

## Grover's Fisheries to Expand

Grover's Fisheries, White Lake, Mich., is planning a \$20,000 expansion program this spring. Grover will build two more docks, net sheds and possibly purchase one or two more boats, doubling the size of the present operation, according to Hallard Grover, who operates the fishery in partnership with his father. The increasing demand of eastern markets for whitefish and chubs and for smoked fish prompted the expansion.

Most of the fishery firm's business is wholesale, with as much as 12,000 lbs. of chubs and whitefish shipped to New York City aboard refrigerated trucks. Later this spring the owners plan to reopen the retail store in Montague, Mich.

The Grovers operate one boat, a 55-ft. steel craft, and employ 10 persons. The younger Grover said that although he and his father were out nearly every day during December, they caught only two lake trout in their nets. He added that whereas trout used to eat all of the chubs, now there are very few trout left, and the chubs have been taking over. They are especially good when smoked.

## Fishery Statistics Office Established

A fishery statistics office recently was opened at Ann Arbor, Mich. by the Branch of Commercial Fisheries of the Fish & Wildlife Service. This office will handle the collection of statistics on the commercial fisheries of the Great Lakes and the Mississippi River states. Alfred A. Swanson, who formerly was stationed at Beaufort, N. C., recently was transferred to Ann Arbor to take charge of the new office.

A suboffice will be opened later in La Crosse, Wis., and a fishery marketing specialist will also operate out of the New Orleans office to cover the Lower Mississippi states.



## Be ready when fish are running

Don't be slowed down with a foul bottom or hauled out for repainting when the fish are there. That's the time for fishing. That's why so many smart fishermen everywhere are using "SUPER-TROP" Anti-fouling Bottom Paint, made by International Paint Company, Inc., specialists for over 70 years in the making of Marine Paints. It gives real protection against fouling of all kinds and retains its anti-fouling properties far longer than do ordinary bottom paints. Send for descriptive folder.



**FOR METAL BOTTOMS**  
INTERNATIONAL has developed a combination of a primer and an antifouling paint that offers the maximum protection and preservation of metal bottoms. Send for the two circulars, "SILVER PRIMOCON" and "SUPER-TROP".

## International BOTTOM PAINTS

International Paint Company, Inc.  
21 West Street, New York 6, N. Y.  
So. Linden Avenue, So. San Francisco, Calif.  
1145 Annunciation Street, New Orleans, La.

International Paints (Canada) Ltd.  
6700 Park Avenue, Montreal, Quebec  
105 West, 2nd Avenue, Vancouver, B. C.

**WORLD'S LARGEST MARINE PAINT MAKERS**

## Virginia Biologists Studying Death Rate of Oysters

Dr. J. D. Andrews of the Virginia Fisheries Laboratory has recently obtained the services of two frogmen, Jack Bullard and Walter Dotts of Richmond, to descend into the icy-cold waters of the York River to recover oysters. For years oysters in trays have been examined to learn more about their death rate, but Dr. Andrews wants to learn about the death rate of oysters lying on the bottom.

In July 1953 he planted a large number of seed oysters marked with red paint. After a year and a half about 60 per cent of the marked oysters were dead. This would indicate that the death rate on the grounds is somewhat higher than the death rate in trays, which was about 50 per cent in 1954.

## Anticipate Good Shad and Herring Season

Shad and herring started to run late last month. On February 21 Captains Wyatt Pruitt and Peter S. Crockett, fishing a small trap in close to the east shore of Blue Crab Island, one mile east of Tangier, caught 8 herring and two halibut. On the 24th they caught 14 herring and 3 flounders. Fishing again on the 26th they caught 36 herring and 7 flounders. From these results they expect the best season in years.

Capt. Smith Parks has set two traps along the west shore of Foxes Island, and expected to be fishing them by the first of this month. He also expects a good fishing season.

Crabbers at Tangier are getting ready for the crabbing season. The crab packers are rebuilding their pounds which hurricane Hazel almost destroyed, and crab pots are being made.

## New Boat for Fisheries Laboratory

Governor Stanley last month released a \$40,000 appropriation to the Virginia Fisheries Laboratory for the purchase of a new research boat.

## Hampton Roads Area Landings

During the month of February fish production in the Hampton Roads area amounted to 3,912,800 lbs., which was 1,097,300 lbs. more than during January. Scup led in landings with 1,883,200 lbs., while sea bass was second with 1,365,100 lbs. Pound net landings for February amounted to 28,500 lbs.

## Catching Smelt Through Ice

(Continued from page 17)

In the Bays de Noc area of Green Bay—a favorite smelt netting ground—over 500 fishermen harvest the silvery fish. In other areas of Green Bay that many more will lower and lift nets.

When smelt are around, the fisherman seldom gets less than 500 lbs. in a single lift, and catches of several thousand pounds in weight daily are not uncommon. The reason for this is that the smelt, strictly a schooling fish, moves in vast concentrations.

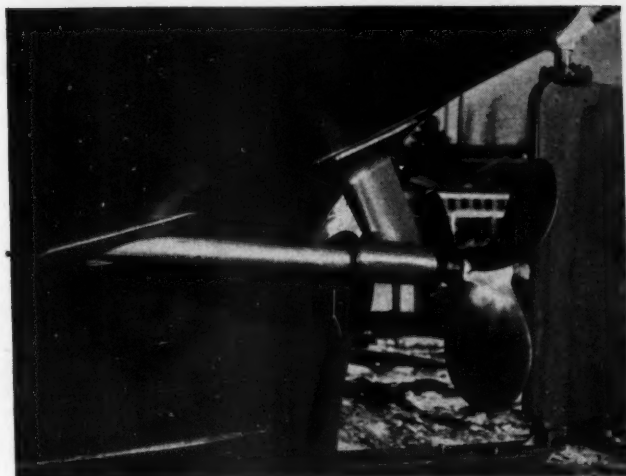
## Ice Forms Over Bays in January

Although the ice commences to form over bays in January, fishermen really can't get their teeth into ice fishing until February and through March or often as long as April 15. By April 15th or thereabouts, the ice either has rotted too much or has broken from shore.

Ice movements on Green Bay since 1945 have been as follows:

March 28, 1945; March 21, 1946; April 7, 1947; March

# LESS FRICTION AT BEARING POINTS WITH TOBIN BRONZE SHAFTING



Bearings live longer when your propeller shaft is Tobin Bronze\*. Every shaft is precision-turned to close dimensional tolerances. Smooth surfaces promote free-running operation, and special straightening keeps vibration down. The result is less friction . . . less wear . . . at bearing points.

Tobin Bronze shafting has a reputation with builders and owners for dependable power transmission. It resists the corrosive action of sea water . . . it's strong and tough, yet resilient enough to absorb sudden shocks at the propeller.

Tobin Bronze has been going to sea since 1885. It's the oldest member of the Anaconda family of marine metals . . . a family which includes Tempaloy\* shafting for high-speed,

heavy-duty service . . . Everdur\* copper-silicon alloys for fastenings and fittings . . . Anaconda copper exhaust tube. *The American Brass Company, Waterbury 20, Conn. In Canada: Anaconda American Brass Ltd., New Toronto, Ont.*

\*Reg. U. S. Pat. Off.

65134



The mark of quality shafting for 70 years

## ANACONDA®

MARINE BRASS AND BRONZE

30, 1948; March 25, 1949; April 26, 1950; April 13, 1951; April 17, 1952; March 23, 1953; March 25, 1954. Only flagrant exceptions since 1900 were in 1923, when the ice broke up on May 5, while in 1944 it started to leave early—February 15.

Thus when the ice commences to move, usually during April according to a 54-year average, it is time to end ice operations and get ready for open-water netting for spawning smelt. The best part of it is that fishermen can use the same nets.

The art of ice fishing, incidentally, was instituted by the Indians. The white settlers in this country and abroad, especially the Scandinavians, imitated the redskin who hauled in enough fish every Winter so he could hunt instead of fish during Spring, Summer and Fall.

A successful ice fisherman should know some of the tricks. First he should familiarize himself with water currents in the area over reefs where fish concentrate, banks where fish school, or areas through which fish move to spawn. Any veteran commercial fisherman who has been at the game can tell where these spots are. And the barometer and weatherman will supply necessary weather information.

### "Snowmobiles" Haul Nets and Gear

Many ice fishermen these days use a "Snowmobile" to haul nets and gear over ice. This usually consists of a light model automobile which has been converted into an eight-wheel tractor device. It grips its way across ice, carrying fishermen, nets and equipment, and pulls behind it a shanty for sheltering the fishermen while waiting for nets to fill. Ice netters who brave Great Lakes ice face bitter cold, sweeping, erratic winds, ice breaks and cave-ins. But the wise fisherman obeys the barometer, and remains at home if it says foul weather is pending.

In late years, fishermen have been using a tripping device which automatically releases nets and allows them to fall to the bottom when a sudden exodus of the ice occurs. In this manner, the nets can later be recovered.

Some ice netters use the gill net set, while others use the trap net set, below the ice. But for smelt producing operations through ice, the seine or small-mesh gill net is most popular.

A long pole is used to set a gill net under ice. It is usually 30 or 40' in length and relatively slender. By shoving it with rope attached from hole to hole until the end hole is reached, the operator is able to pull the gill net from the starting hole.

The gill net is lowered to the bottom by means of the ropes. If a 1000-foot gill net is used, a number of holes are required to spread it over the proper area. The holes are cut through the ice with an "ice spud"—a sort of chisel-shovel affair, which looks like a long-handled spade.

For seine netting functions, a long oblong-type hole is fashioned through the ice. This may be but a few feet wide and many feet in length. Some fishermen use a hand-winch to lift ice nets, as this task sometimes becomes back-breaking work when a horde of smelt become captured within the twine.

Pound or trap nets are set under ice by utilizing the same method applied in setting gill nets. A series of holes are cut through the ice to work a rope out to a point where the end of the lead of the trap net or the end of the gill net is to be anchored.

Catches taken through ice may be withheld as much as a week when weather is near zero or below without fear of spoilage. If severe storms prevent the fisherman from lifting his nets for several days, he thus has little to worry about.

A few "musts" in ice fishing are warm clothing, good equipment and netting upon which you can rely. Without "ice creepers"—spikes in shoes—fishermen would hesitate to venture far out on the ice.

Notwithstanding the ruggedness of commercial ice fishing, the fishermen seem to be right back at it every year. This is because ice netting for smelt, not to mention the several other varieties of fish which may be caught, is a profitable business.



# MAKE YOUR MONEY GO FURTHER

with



FROG® BRAND

## FISHERMEN'S SUITS

Sawyer's Neoprene Latex Fishermen's  
Suits give you 100%  
protection against

- SALT WATER
- GASOLINE
- CHEMICALS
- RUBBING
- SCRAPING
- SNAGGING

• Your best  
dollar value!

• Quality base fabrics  
are saturated and  
coated inside and out  
with specially prepared  
Neoprene Latex.

• Interlocked seams,  
double sewn, extra  
heavy stitching.

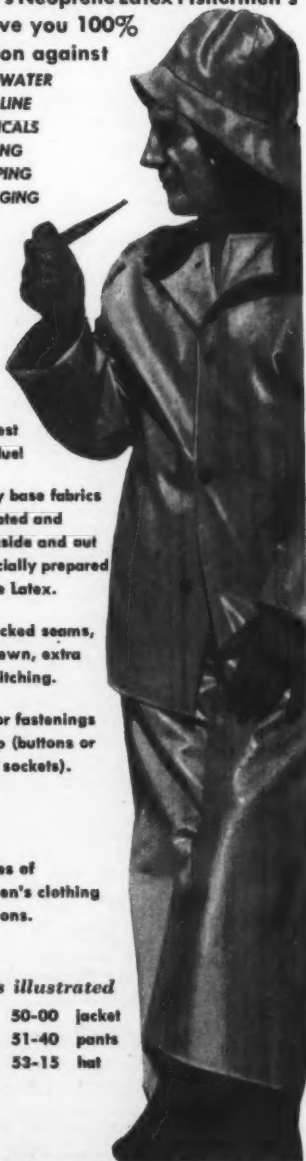
• Anchor fastenings  
won't rip (buttons or  
ball and sockets).

All styles of  
Fishermen's clothing  
and aprons.

Styles illustrated

50-00 jacket  
51-40 pants  
53-15 hat

THE H. M. SAWYER & SON CO.  
Cambridge, Mass.



## South Carolina Law Changes Proposed

A seven-point proposal for changes in South Carolina commercial fishery laws applying exclusively or mainly to Beaufort County has been submitted by the South Carolina Seafood Producers Assoc. of Beaufort County. Made up of 23 fishing boat owners in Beaufort County, the Association is largely a combination of men engaged in shrimp and crab catching. The proposal asks the following changes:

1. Give the state's commercial fisheries advisory board more voice in functions of the Commercial Fisheries Division, by permitting it to initiate action without having to wait for the matter to be referred to it by the Director of Commercial Fisheries. Also, include in the advisory board one member from Beaufort County who is actively engaged in the shrimping industry.

2. Replace the present director with someone who is qualified by biological training.

3. Extend the open season on shrimp from April 1 to December 1 or such later date as may be advocated by the Bears Bluff Laboratories.

4. Proposes inland boundaries for shrimp trawling between April and Aug. 1. For St. Helena Sound, existing boundaries are little changed. Trenchard's Inlet would be closed at its seaward end; and the Port Royal Sound's present trawling grounds would be reduced to the area seaward of a line drawn from Station Creek on St. Phillip's Island westward to the northern tip of Hilton Head Island. Calibogue Sound would be closed in its entirety north of Braddock Point.

5. Suggests movement inward of the boundaries from Aug. 1 to the season's end on Dec. 1. St. Helena Sound would be open about as far upstream as Parrott Creek; Trenchard's Inlet to Station Creek; and Port Royal Sound-Beaufort River would be open inland to a line about east-west between Foot Point on Colleton Neck and Buoy No. 20 in the Beaufort River. Calibogue Sound would be open as far as Spanish Wells on Hilton Head Island, which is just south of the mouth of the May River.

6. Proposes that mesh opening in the crab nets be reduced from five to four inches. The August 1-December 1 shrimp trawling boundaries are recommended for the crab-trawling season which extends from December 1 to April 1.

7. Suggests that funds be allocated for an educational program to acquaint the public with the problems and needs of the seafood industry in South Carolina, and that additional funds be allocated Bears Bluff Laboratories for more extensive experimentation, with emphasis on finding more shrimping grounds.

## Rhode Island Quahaug Transplanting Bill

A bill which would appropriate \$25,000 for transplanting of quahaugs from polluted waters of the Providence River to clean waters of Narragansett Bay, has been introduced. The measure would continue a program started a year ago.

Other legislation would revise the law to require that out-of-state menhaden boats pay twice as much for licenses for menhaden fishing as local residents. Rhode Islanders would pay \$25 for a license for a 65-ft. boat; \$50 for a boat up to 100 ft.; and \$100 for any boat more than 100 ft. long.

## New Fishery Statistical Office

The Fish & Wildlife Service is to open a new fishery statistical office in Providence, according to Secretary of Interior McKay. Funds for the office were made available under the Saltonstall-Kennedy Act.

## Would License Shellfish Firms

Director John L. Rego of the Dept. of Agriculture and Conservation announced last month his office would seek the enactment of legislation calling for the licensing of all firms dealing in shellfish in the state. The measure would be mainly of a regulatory nature and would give his department power to shut down any place buying or selling shellfish in violation of state law.

Under present law the dealers are licensed by the Dept. of Health. Rego said that in most cases it is difficult to prove that shellfish possessed by a dealer came from polluted waters.

Rego said there are now about 2,600 licensed quahaugers and only 1,000 of them make a livelihood of it. He feels that the number could be increased by 1,000.

Rego advocated the transplanting of quahaugs from restricted areas. He said there were about a half million bushels of quahaugs in an area restricted by the Health Department because of pollution.

In the deep waters off Hope Island there are about 200,000 bushels of quahaugs. The water is too deep for bull raking or tonging, and the state is going to urge legislation to open the area for dredging. It is estimated the quahaugs there are worth a million dollars.

## Quahaug Areas Still Closed

Quahaug areas off Nausauket and Buttonwoods in Warwick, closed to shellfishing several months ago because of a large number of undersized shellfish, cannot be reopened for some time yet, according to Conservation Director John L. Rego. Biologists have been asked to study the bottom in the two spots and their first report showed that 76 per cent of the shellfish in a 1,000-square-foot area were undersized.

## New Bedford Fishermen Oppose Maximum Lobster Size Bill

John F. Linehan, general manager of the New Bedford Seafood Producers Assoc., appeared last month in Boston at a public hearing on a bill proposed by the South Shore Lobster Fishermen's Assoc. The bill would ban the taking of lobsters less than 3 3/16 inches, or more than 5 inches. This would not change the minimum now in effect.

The fishermen also proposed a \$25-a-year license fee instead of the present \$5 charge for a permit. Frank Moore, president of the Lobster Association, told the hearing before the State Committee on Conservation that the size limits would leave in the ocean the majority of lobsters at their greatest breeding capacity.

However, Mr. Linehan said the proposed law would not stop deep-water draggers from gathering lobsters, but would instead send them to other states to sell their catch. Linehan added that the bill would eliminate probably about 90 per cent of landings of lobsters of the larger-sized variety, meat of which is used by restaurants for salads, stews and casseroles. It was said that the bill also would hurt the large lobster fishing boats which operate in deep water.

Three New Bedford fishing craft, the *R. W. Griffin*, *Sonya* and *Sea Hawk*, converted to lobster fishing last summer. While the vessels lobstered only intermittently on trial basis trips, the three, in addition to small lobster catches by draggers and scallopers, landed approximately 500,000 lbs. of large lobsters.

These fishing craft are expected to reconvert to lobstering this month, and with a fourth regular deep-water lobster boat, the *Metacomet*, probably will carry on full-scale lobster fishing until July.

### Fish Landings Increase During January

Fish landings at the port of New Bedford in January increased approximately 25 per cent over those of January, 1954. A total of 2,718,300 lbs. of fish and scallops were landed during January.

The sea scallop catch was 35 per cent below that of the previous January, but this was due to bad weather conditions. Price for the shellfish remained high, with an average of .6568 cents a pound, compared with .3812 cents a pound in January, 1954.

### Abandon Search for Scallop

The Coast Guard search for the lost New Bedford scalloper *Doris Gertrude* and her 11-man crew was called off February 3 after a nine-day hunt failed to turn up any trace of the overdue vessel. Capt. Joshua W. Murphy of Fairhaven was the skipper.

The theory that the scalloper was "run down" by an oceangoing vessel was asserted at a Coast Guard hearing. Co-owners of the craft, machine shop, engine and radio repairmen and former crew members testified the vessel was in "A-1 condition."

### Part of Cove Reopened

The southerly area of Clarks Cove was reopened for shellfishing early last month, and the section will remain open until April 15. The cove area had been closed to commercial shellfishing since the August 31 hurricane. The north or head of the cove area will remain closed.

### Short Lobsters Released

More than 1000 short and egg bearing lobsters have been released in the waters around New Bedford and Cape Cod. These lobsters were confiscated by the Division of Marine Fisheries from international shipments to wholesale lobster firms in the greater Boston area because they were smaller in size than is permitted under state law.



*Gorgeous George* during fogging operation.

## "As the best buy in marine power, we chose a CHRIS-CRAFT MARINE ENGINE!"

George A. Gieseke — Hollywood, Florida's city engineer — reports: "Value and utility were big factors in building and powering our new 26-ft. Hollywood Harbor Patrol boat, *Gorgeous George*. We chose a Model A, 60 h.p. Chris-Craft Marine Engine for power. It has proved fast enough to enforce canal speed limits; has the power to tow disabled cruisers, and, above all, it's dependable — important for rescue work, insect control and reconnaissance in the undeveloped lowlands, and for general harbor patrol. I'm convinced that we couldn't have picked a better marine engine than a Chris-Craft."

Chris-Craft  
Model A, 60 h.p.  
Marine Engine



**You, too,** will find that horsepower for horsepower you can't buy a better marine engine than a Chris-Craft—for smooth, dependable performance, years of hard use at low upkeep. Records prove it!

Chris-Craft Marine Engines are priced from \$642, f.o.b. Algonac, Mich. (subject to change). Available in a wide power range, 60 through 190 h.p., with reduction drives, opposite rotation and *Chris-O-Matic* for most models. See your Chris-Craft Dealer, or mail coupon for catalog today!

**Chris-Craft**  
MARINE ENGINE DIVISION

CHRIS-CRAFT CORPORATION, ALGONAC, MICH.  
WORLD'S LARGEST BUILDERS OF MOTOR BOATS

CHRIS-CRAFT CORPORATION, Algonac, Michigan

Send Chris-Craft Marine Engine Catalog to:

Name

Address

City  Zone

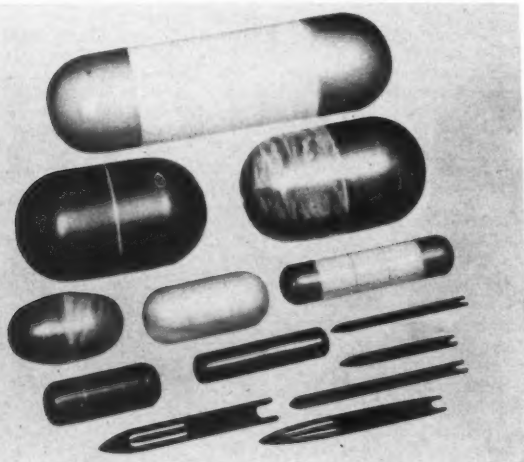
County  State

# EQUIPMENT and SUPPLY NEWS

## Shepherd Has New Plastic Float Line

The J. H. Shepherd Son & Co. of Elyria, Ohio, has announced a complete new line of "Duro" plastic floats and "Flexo" mending needles, designed for commercial fishing operations in all parts of the country. An exhaustive research survey of the requirements of fishermen from coast to coast and in the inland fishing areas was made, prior to development of the new line. Each float and needle is especially designed for a specific fishing requirement, and the floats incorporate the maximum in buoyancy, corrosion, weather and impact resistance, durability, visibility, easy attachment, and color fastness.

Special features for specific fishing conditions include the ability to withstand extreme pressure in deep-water ocean fishing, while surface buoys are compartmented for extra buoyancy and impact resistance. The Great



Shepherd plastic floats and mending needles.

Lakes equipment is made in especially bright, lifetime colors for extra visibility in rough weather.

The Shepherd Company is a pioneer manufacturer of floats and needles for the fishing industry, and has been in continuous operation since 1907. Starting with wooden floats as its first product, the Company has progressed through metal equipment to plastic flotation gear.

## New Bulletin on Lister Diesels

Lister marine Diesel engines with one to six cylinders and 9 to 54 bhp. at 1800 rpm. are illustrated and described in a 4-page bulletin available from The National Supply Co., Pittsburgh, Pa. Design features, accessories, performance curves, and dimensional diagrams are included.

## Price Reduction on Styrofoam Plastic

An appreciable price reduction on Styrofoam (Dow expanded polystyrene) has been announced by Donald L. Gibb, sales manager of the plastics department, The Dow Chemical Co., Midland, Mich.

The price reduction is possible, Mr. Gibb stated, because of increased production. In addition to enlarged facilities at Midland, a new Styrofoam plant at Allyn's Point, Conn., soon will start producing light-weight plastic foam.

Styrofoam is being used for an increasing variety of purposes, including low temperature insulation and buoyancy.

E. W. Winegard, who has been appointed a sales engineer for the Bowers Battery & Spark Plug Co., Reading, Pa. Winegard is a veteran executive in the automotive and bus industries, and will cover territory between Philadelphia and Florida and Louisiana. He was graduated from Williamson Trade School in 1925 as an architectural construction draftsman, and took a business-administration course at the Georgia-Carolina School of Commerce, Mount Airy, N. C.



## Roebbling Higher-Strength Wire Rope

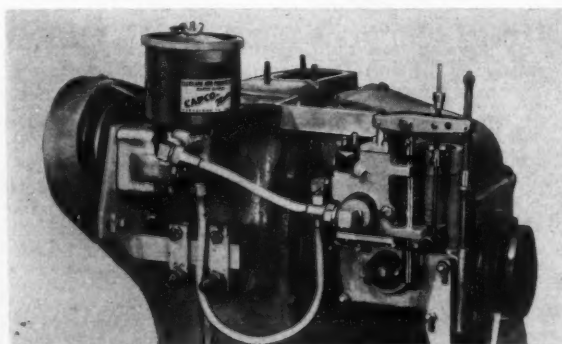
John A. Roebbling's Sons Corp., Trenton 2, N. J., have announced a new line of wire ropes, with steel cores, having 15% greater strength than the strongest grade marketed heretofore. The higher-strength rope will be obtainable in rope sizes ranging from 1/4" to 3 1/2", and will be manufactured primarily in preformed constructions.

The new Roebbling rope has higher resistance to wear from bending and abrasion, as shown by laboratory tests as well as on-the-job observations, over several years. As a result, it not only has higher strength, but also will deliver longer rope life. In the past, one of the obstacles to rope of higher strength was a proportionate decrease in other qualities as the strength went up.

## Chris-Craft Appoints New Vice Presidents

Jay W. Smith, President of Chris-Craft Corp., has announced a number of appointments in that firm. Named as Vice President In Charge of Sales was Wayne Pickell, while A. William MacKerel has been appointed Vice President In Charge of Manufacturing. Vice President In Charge of Procurement is Jay C. Smith, and Harry H. Coll is Vice President In Charge of the Holland (Michigan) Division.

The Chris-Craft Corp., with home offices in Algonac, Mich., has manufacturing facilities in Algonac, Holland, and Cadillac, Mich.; Chattanooga, Tenn.; Caruthersville, Mo.; and Salisbury, Md. The firm was founded around the turn of the century by Christopher Columbus Smith.



Capco-matic hydraulic reverse gear shifter mounted on demonstration unit. This device provides finger-tip control from one or two stations, and gives the advantages of hydraulic transmissions to mechanical equipment. The shifter is particularly adapted to engines of from 50 to 300 hp., either Diesel or gasoline, and installation easily can be accomplished on new or old reverse gears.



**PFLUEGER**

# HOOKS

**STANDARD OF FISHERMEN EVERYWHERE****752 DIFFERENT TYPES AND SIZES REGULARLY STOCKED**

You can depend on Pflueger Hooks to give long service. They're made of the toughest steel, finely tempered to hold shape and finish. Made in U.S.A. by third generation of Pfluegers. Demand Pflueger hooks and you'll catch more fish.

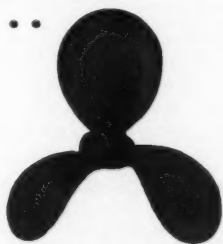
THE ENTERPRISE MANUFACTURING CO., AKRON, OHIO  
90 YEARS OF MAKING FINE TACKLE

**PFLUEGER**

(Pronounced "FLEW-GER") MADE IN U.S.A.

**A GREAT NAME IN TACKLE**

## EXPERT RECONDITIONING ON PROPELLERS OF ALL SIZES . . .



PRECISION EQUIPMENT and expert workmen insure an accurate repair job. We guarantee our work. Estimates gladly furnished. Send your damaged propeller to us for free inspection and report.

**HYDE WINDLASS COMPANY**  
BATH, MAINE

# HYDE

  
PROPELLERS
**LARGEST-SELLING**

## Lightweight Anchor

**FOR 17 YEARS!**

There's good reason for owners of boats up to 80 feet long to prefer Northill anchors. Thousands of skippers have discovered that these rugged anchors dig in the minute they touch the bottom... and the harder the blow, the harder they hold. Break out easily, too, because their scientific design keeps them from burying too deep. 3 to 105 lbs. Easy to handle and stow.

**Northill Company, Inc.**

9851 So. Sepulveda Blvd., Los Angeles 45, California

A subsidiary of

**THE GARRETT CORPORATION**



# These are SUM BOTES!

A  
WINNING  
COMBINATION

- DUTCH TREAT
- JR. HOLLIDAY
- COQUETTE
- JUNIOR KNARR
- NORDIC IMPORTS
- NORGE BOATS

POPULAR SAILERS  
POPULAR AUXILIARIES



5 H.P.  
SEA  
PUP



10 H.P.  
SEA  
TWIN

Complete line 5 to 580 H.P., Gasoline or Diesel

## GASOLINE

MODEL	H.P.	CYLS.
SEA-PUP .....	5 H.P.....	1
SEA-TWIN .....	10 H.P.....	2
SEA-CUB .....	25 H.P.....	4
SEA-JEEP .....	61 H.P.....	4
SEA-PRINCE .....	95 H.P.....	6
SEA-PRINCE (Spec.)...	105 H.P.....	6
SEA-ROVER .....	130 H.P.....	6
SEA-ROVER (Spec.)...	145 H.P.....	6
SEA-MATE (Spec.)...	160 H.P.....	6
SEA-FARER .....	225 H.P.....	6
SEA-RAIDER .....	280 H.P.....	6
SEA-RAIDER .....	580 H.P.....	12

## DIESEL

2-127 .....	27 H.P.....	2
4-226 .....	60 H.P.....	4
6-298 .....	75 H.P.....	6
6-529 .....	130 H.P.....	6
6-935 .....	250 H.P.....	6
HYDROJET .....	61 H.P.....	4

KERMATH MANUFACTURING CO., Detroit 8, Michigan

☐ Individual ☐ Dealer

Please send detailed literature as checked.

Name .....

Street .....

City ..... Zone ..... State .....

DO  
THIS  
NOW!

SALES INDICATE A GROWING POPULARITY!



95 H.P.  
SEA-PRINCE  
40' LENGTH - 22½" CENTERS

KERMATH MANUFACTURING  
COMPANY

5890 Commonwealth Avenue  
DETROIT 8, MICHIGAN

Canadian Plant: Kermath (Canada) Ltd.  
619 King St., W., Toronto 2, Ontario



Austin B. Crouchley, who has been appointed as sales engineer for Enterprise Engine & Machinery Co., working out of the New York office. Mr. Crouchley comes to Enterprise from the Chicago Pneumatic Tool Co., having been a sales engineer for this firm working out of Chicago in the Mid-west territory. A graduate of Tufts College in mechanical engineering, he held a commission in the Navy during World War II, serving in Pearl Harbor. He was called back for a tour of duty during the Korean war.



## Pamphlet on Development of Lube Oils

The development of more efficient lubricating oils to get added years of reliable service from Diesel engines is related in a new booklet, "Let Your Diesel Live", published by Caterpillar Tractor Co., Peoria, Ill. This pamphlet contains the story of lubricating oils and how these oils affect the owner or prospective purchaser of a Caterpillar engine. The never-ending effort to design the best Diesel that can be produced and the continuing research in the development of lubricating oils is described in this illustrated sixteen-page booklet.

## Salt-water Ice for Preserving Fish

(Continued from page 15)

water which freezes and forms a new layer of ice against the plate and behind the layer or layers of ice which already have frozen. This process continuing, builds layer behind layer to form a thicker coating which later will crumble and float to the top of the tank.

Where cakes of salt-water ice are desired, the walls of the container are so constructed that they serve as the refrigeration plates, the process of ice formation continuing until all of the water is frozen, thus forming a solid cake of ice which is easily crushed for use as desired.

It is emphasized that the liquid to be frozen always is in direct contact with the refrigerating plate on one side and on the other side is against the ice which previously has been formed. There is, therefore, no power loss to transferring the heat through doubled, tripled and quadrupled thicknesses of ice with attendant increased costs and loss of capacity.

## Automatic Controls

The Taylor machine automatically controlled and once put into operation, can maintain constant temperature or can continue through the ice-making cycles as long as desired. The capacity of the machine is greatly increased because at all times during the cycle the temperature keeps as low as desired.

Tests have indicated that the Taylor machine, designed especially for the production of salt-water ice, will show a cost of production lower than present expense of making fresh-water ice. In each section of the fishing industry and geographical area, the adaptation and use of the machine would require study, but the same problems obtain and the same opportunity for savings, added production and profit could result, according to Mr. Cooley.

Research has shown the commercial impossibility of producing salt-water ice with present standard ice-making equipment. It is estimated that plant capacity would be cut 50% and cost increased 200-300%, which would be prohibitive. Crushed fresh-water ice currently is being delivered to the fishing industry in New England at a price of \$6 per ton.

It is important to note that the Taylor machine can be used for either fresh or salt-water ice. According to Mr.

Cooley  
except  
needs  
under

Isad  
Boston  
been d  
aboard  
proved  
requir  
proced  
Sim  
produ  
for m  
after t  
A fina  
termin  
vemb  
tion o  
qualit  
It is  
indust  
becau  
travel  
new r  
trawl  
basis  
which  
for m  
for m  
It is  
ing h  
States  
gency  
The  
ing w  
vious  
been  
for th  
The  
Delaw  
boats  
chang  
contr  
mach  
ment  
erate  
quant  
indus  
equip

## Rule

In  
Fishe  
caugh  
Mull  
"I  
was  
back  
ring"  
Sout  
saw  
John  
been  
so lo  
"M  
two  
it go  
did i  
two  
mira  
smal  
did t  
sone

MAR

Cooley, if the machine is used for fresh water, it will be exceptionally efficient as well as lend itself to individual needs and avoid delivery and shrinkage costs obtaining under present market conditions.

### Potentialities of Freezing Fish at Sea

Isadore Bromfield of Bromfield Manufacturing Co., Boston, Mass., recently dismantled equipment which had been designed for filleting, packaging and freezing of fish aboard trawlers at sea. This equipment and method proved to be efficient and successful. It, however, would require costly changes in the boats and in the processing procedures at port.

Similar factory ships for processing frozen fishery products at sea have been considered by Great Britain for many years. The initial factory ship, the *Fairfree*, after tests and necessary alterations, operated efficiently. A final inspection of the equipment and products at the termination of a voyage in Ardrossin, Scotland, in November, 1947, indicated satisfactory selection and operation of equipment and showed production of the highest quality.

It is pertinent, however, to note that the British fishing industry—which has greater need for freezing fish at sea because of the much greater distances which must be traveled to reach the fishing banks—has not adopted this new method but has greatly expanded its fleet of large trawlers. These new ships operate on exactly the same basis and use the same type of gear and equipment which has proved universally efficient in catching fish for more than 40 years.

It is believed that basic changes such as these, requiring heavy financial outlay, could be made in the United States fishing industry only in times of National Emergency or by Government Agency.

The Fish and Wildlife Service is presently experimenting with freezing whole fish at sea. The *Delaware*, previously a trawler operating in the New England fleet, has been equipped with an absorption system of refrigeration for this purpose.

The use of the absorption system as being tested on the *Delaware* would require costly remodeling of present boats or new construction and, in addition, would cause changes in shore processing plants and procedures. By contrast, Mr. Cooley points out, the Taylor ice-making machine falls in the class of new and improved equipment for use on present boats wherever they may operate, producing a better product at lower cost in larger quantities in the same unfrozen condition on which the industry presently depends, and for which it already is equipped.

### Rubber Band Around Herring's Neck

In a letter to the editor, referring to an item in *Atlantic Fisherman* sometime ago regarding a cod fish that was caught having an elastic band around its neck, H. C. Mullen of Beals, Maine, wrote:

"I have a story to match it, one about a herring that was caught with an elastic band about its neck. This was back around 1915 or 16. The fish was a large 'swawn-herring' caught while men were netting herring just off Southern Head, Grand Manan Island, N. B., Canada. I saw the fish myself and sent a write-up of it to the *St. John Telegraph-Journal* which was printed. The band had been snapped on just back of the gills and had been on so long that the skin in places had healed over the band.

"Many interesting questions naturally arise. Who in two instances ever thought of banding a fish and letting it go? Who happened to have a band handy anyway? How did it ever happen that among the millions of fish these two should be caught. It would almost qualify as a miracle that those who handled the fish ever spied the small bands anyway. 'Truth is stranger than fiction.' Or, did these fish swim into those bands thrown overboard by someone?"

## Steer Your Course to Greater Profits



# NEW LORAN

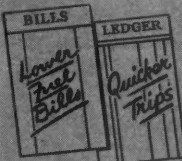


### Saves You Time



Whether you are spotting time-tested fishing banks or determining the fastest course for your ship, Radiomarine Loran (Model LR-8803) cuts your running time to the barest minimum. Fast, accurate fixes speed your ship by determining your location . . . maintaining your course. And it operates in all weather . . . foul or fair.

### Saves You Money



With Radiomarine Loran you can take advantage of favorable ocean currents that conserve your fuel. Quick positioning in any weather means cutting trip time . . . eliminating costly delays. And for fishing men, Radiomarine Loran helps you find the most profitable fishing banks quicker, indicates when you arrive, and helps keep you directly on your fishing position at all times.

### Saves You Effort



Direct reading . . . calculates automatically. Simplifies pin-pointing your position on Loran charts. Recessed scope and dial make day or night reading quick and easy. Whether you are on a fishing boat, tanker, cargo ship or luxury liner, steer your course to greater profits with Radiomarine Loran.



write for free information now!

**RADIOMARINE CORPORATION of AMERICA**

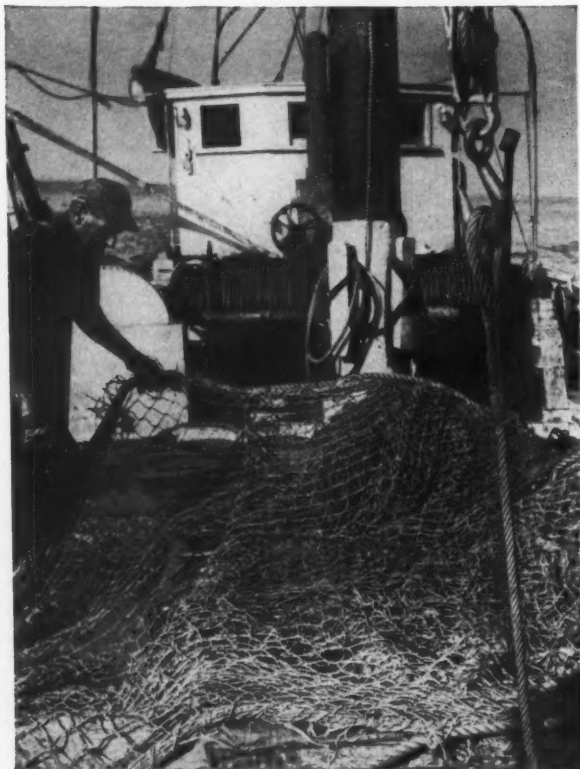
A SERVICE OF RADIO CORPORATION OF AMERICA  
75 VARICK STREET, NEW YORK 13, N.Y.



# IT'S A WHALE OF A ROPE!

## ROEBLING PREFORMED

# SPECIAL GALVANIZED



THIS NEW ROEBLING FISHING ROPE is something to brag about! Its *special galvanizing* gives every inch of every wire a lot more resistance to corrosion. Its *core protection*—the fibre core impregnated with a preservative—wards off excessive absorption; reduces destructive action of salt water, fungi, mildew and dry rot. Its *pre-forming* makes it easier to handle; gives you smooth drum winding; helps prevent kinking and bending.

Next time you order fishing rope, order Roebling's New Preformed Special Galvanized. And for standing rigging and every other service, there's a Roebling wire rope that will give you top dependability and long-run economy. Call your distributor or the nearest Roebling office. They're listed in the yellow pages. John A. Roebling's Sons Corporation, Trenton 2, N. J.



Subsidiary of The Colorado Fuel and Iron Corporation

## BOAT CATCHES

### For Month of February

Hailing fares. Figure after name indicates number of trips.

#### NEW YORK

Carol & Jack (2)	106,000	Golden Eagle (3)	172,000
Charlotte M. (2)	113,600	Hazel B. (3)	224,300
Clipper (3)	182,000	Joseph S. Mattos (3)	207,500
Edith L. Boudreau (3)	186,700	Katie D. (3)	183,000
Evelina M. Goulart (3)	201,200	Lady of Good Voyage (2)	120,500
Felicia (2)	80,500	Teresa & Jean (2)	94,900
Figueira Da Foz (3)	173,200	Tina B. (3)	186,000

#### Scallop Landings (Lbs.)

Barbara (2)	12,900	Gambler (2)	16,200
Barbara & Gail (2)	14,175	Hiwal (1)	9,800
Beatrice & Ida (2)	16,967	Major J. Casey (1)	9,500
Brant (1)	11,000	Maridor (2)	21,300
Clipper (2)	20,300	Muskegon (1)	8,800
David A. (1)	10,800	Norseman (2)	10,500
Enterprise (2)	20,800	Richard Lance (1)	14,400
Florence B. (2)	21,500	Rosalie F. (1)	2,808

#### NEW BEDFORD

Adventurer (2)	60,500	Julia DaCruz (1)	9,000
Anastasia E. (3)	45,700	Keibarsam (1)	7,700
Annie Louise (3)	16,100	Lera G. (2)	31,000
Annie M. Jackson (5)	58,000	Lorine III (1)	16,000
Antonina (2)	10,000	Mary Tapper (3)	77,800
Arnold (2)	17,800	Molly & Jane (1)	9,500
Arthur L. (3)	55,000	Nautilus (2)	90,500
Austin W. (2)	55,300	Noreen (2)	83,000
Barbara M. (2)	30,400	Pauline H. (2)	79,800
Carl Henry (3)	61,500	Phyllis J. (3)	32,300
Chas. E. Beckman (4)	68,500	Reneva (1)	6,900
Charlotte G. (3)	36,400	Roann (2)	21,000
Christina J. (2)	50,000	Roberta Ann (1)	10,000
Christine & Dan (3)	35,800	Rosemarie V. (4)	55,700
Dauntless (2)	22,500	St. Ann (2)	24,600
Elva & Estelle (2)	19,900	Shannon (4)	37,500
Elva L. Beal (1)	8,000	Solveig J. (3)	83,200
Eugene & Rose (3)	57,500	Sonya (1)	23,000
Falcon (1)	6,400	Stanley B. Butler (3)	111,000
Gannet (2)	71,000	Sunbeam (2)	42,000
Gladys & Mary (2)	47,000	Teresa & Jean (1)	32,000
Harmony (3)	35,500	Three Bells (1)	2,500
Hope II (3)	65,000	Venture I (3)	60,000
Huntington Sanford (3)	27,500	Victor Johnson (1)	25,000
Invader (2)	75,000	Viking (3)	80,300
Jacintha (2)	62,000	Whaler (2)	76,000
Jimmy Boy (3)	47,200		
Joan & Tom (4)	49,500		

#### Scallop Landings (Lbs.)

Aloha (3)	31,000	Louis A. Thebaud (1)	8,000
Alpar (1)	1,000	Louise (1)	11,000
Amelia (2)	18,800	Lubenray (1)	10,000
Babe Sears (2)	17,400	Madonna Di Trapani (2)	4,000
Bobby & Harvey (1)	7,000	Malene & Marie (1)	8,000
Bonnie Bill (1)	2,200	Marmax (2)	20,500
Bright Star (2)	14,500	Mary Anne (3)	30,000
Camden (2)	10,500	Mary J. Hayes (2)	19,700
Caracara (1)	11,000	Monte Carlo (2)	22,000
Carol & Estelle (3)	20,700	Moonlight (2)	20,000
Caroline & Priscilla (1)	5,000	Nancy Jane (2)	19,600
Chas. S. Ashley (1)	8,000	Nellie Pet (2)	21,500
Debbie Jo-Ann (2)	20,000	New Bedford (1)	8,300
Eleanor & Elsie (1)	11,000	Newfoundland (2)	16,000
Empress (1)	10,000	Palestine (1)	7,000
Ethel C. (2)	17,500	Pearl Harbor (2)	19,500
Eunice-Lillian (2)	21,200	Pelican (2)	22,000
Fairhaven (2)	22,000	Porpoise (2)	18,500
Fleetwing (1)	11,000	Ruth Moses (2)	16,200
Janet & Jean (1)	9,500	Sea Hawk (1)	4,000
Jerry & Jimmy (2)	13,800	Sea Ranger (2)	21,200
John G. Murley (1)	7,500	Ursula M. Norton (2)	20,500
Josephine & Mary (2)	16,200	Vivian Fay (2)	20,500
Kingfisher (1)	8,200	Wamsutta (2)	14,500
Lauren Fay (2)	21,500	William D. Eldridge (1)	9,500
Linus S. Eldridge (2)	19,400		

Agnes &  
Alice M.  
Andarte  
Araho (1)  
Batavia  
Courier  
Dorchest  
Eagle (1)  
Elinor &  
Ethelina  
Gulf Stre  
John J. M  
Kennebe

Adele K.

Alden (3)  
Althea J.  
America  
Anna G.  
Ann & M  
Annie (6)  
Annie &

Bonaven  
Bonnie I

Californ  
Carlo &  
Catherin  
Cigar Jo  
Curlew

Dawn (3)  
Dolphin  
Doris F.

Eddie &  
Emily H.  
Etta K.  
Eva M.  
Eve II (

Falcon  
Floren  
Flow (1)  
Frances  
Francis  
Frankie

Gaetan  
Giacom

Helen  
Holy N

Ida & J.  
Immac

Jackie  
Jackson  
Jennie  
Joseph  
Josie II  
Judith

Killarr  
Kingfi

Linda  
Little  
Lone F  
Lucy S

Marga  
Margie  
Maria

Cap'n

Araho  
Calm  
Crest  
Dorot  
Dorot  
Drift  
Elin F  
Jeann

Pocah

MAR

## PORTLAND, ME.

Agnes & Elizabeth (2)	112,000	Mary & Helen (2)	4,000
Alice M. Doughty (3)	50,000	M. C. Ballard (2)	73,000
Andarte (3)	96,800	Medan (1)	250,000
Araho (1)	122,000	Ocean Life (1)	285,000
Batavia (2)	250,000	Quincy (1)	70,000
Courier (3)	243,000	St. George (2)	295,000
Dorchester (1)	30,000	Theresa R. (2)	165,000
Eagle (1)	160,000	Vagabond (1)	45,000
Elinor & Jean (3)	76,200	Vandal (4)	201,000
Ethelina (3)	121,000	Vida E. II (1)	2,000
Gulf Stream (4)	287,500	Wawenock (2)	340,000
John J. Nagle (3)	127,000	Winthrop (1)	175,000
Kennebec (4)	104,000		

### Scallop Landings (Lbs.)

Adele K. (2)	18,500	Mary & Julia (2)	19,000
--------------	--------	------------------	--------

## GLOUCESTER

Alden (3)	7,500	Maris Stella (1)	140,000
Althea Joyce (1)	9,000	Mary (6)	10,500
American Eagle (5)	52,500	Mary Ann (3)	34,500
Anna Guarino (7)	10,000	Mary E. (4)	5,000
Ann & Marie (1)	7,500	Minkette I (5)	5,500
Annie (6)	8,000	Mother Ann (1)	230,000
Annie & Josie (9)	17,500		
Bonaventure (1)	82,000	Natale III (3)	51,000
Bonnie Lou (1)	10,000	No More (3)	2,500
		Nova Luna (4)	3,000
California (2)	29,000	Novelty (4)	5,500
Carlo & Vince (6)	23,000		
Catherine B. (6)	64,500	Ocean Wave (1)	15,000
Cigar Joe (4)	47,000		
Curlew (2)	323,000	Peggy Belle (1)	500
		Philip & Grace (1)	51,000
Dawn (3)	3,500	Pilgrim (2)	135,000
Dolphin (1)	85,000	Pilhasca (4)	3,500
Doris F. Amero (3)	118,000	Pioneer (6)	10,500
		Priscilla (1)	1,500
Eddie & Lulu M. (8)	11,000	Puritan (1)	103,000
Emily H. Brown (1)	97,000		
Etta K. (4)	17,500	Rodman Swift (4)	4,000
Eva M. Martin (5)	5,500	Rose & Lucy (3)	26,000
Eve II (2)	4,000	Rosemarie (2)	25,000
		Rose Mary (1)	25,000
Falcon (11)	42,000	Rosie & Grace (4)	47,500
Florence & Lee (1)	60,000		
Flow (1)	196,000	St. Anthony (1)	100,000
Frances R. (7)	110,500	St. Cabrini (4)	68,500
Francis L. MacPherson (2)	212,000	St. Francis (6)	20,000
Frankie & Jeanne (6)	7,000	St. John (6)	11,000
		St. Joseph (2)	46,000
Gaetano S. (3)	110,000	St. Mary (8)	59,000
Giacoma (6)	12,500	St. Peter (5)	111,500
		St. Peter (II) (1)	80,000
Helen B. (3)	25,000	St. Providence (7)	17,500
Holy Name (3)	13,500	St. Rosalie (3)	12,500
		St. Stephen (7)	10,000
Ida & Joseph (3)	72,000	St. Terese (4)	34,000
Immaculate Conception (3)	52,000	St. Victoria (2)	38,000
		Salvatore & Grace (4)	25,000
Jackie B. (3)	22,000	Santa Lucia (6)	11,000
Jackson & Arthur (4)	4,000	Sebastiana C. (5)	62,000
Jennie & Lucia (1)	11,000	Seraphina N. (2)	8,500
Joseph & Lucia (2)	185,500	Serafina II (5)	32,000
Josie II (7)	15,000	Sister Ann (1)	177,000
Judith Lee Rose (2)	574,000	Stella Maris (1)	3,000
		Sylvester F. Whalen (2)	315,000
Killarney (1)	145,000		
Kingfisher (1)	192,000	Theresa M. Boudreau (1)	207,000
		Tipsy Parson (5)	6,000
Linda B. (8)	22,500	Trimembrail (1)	2,000
Little Flower (8)	42,000		
Little Joe (4)	9,000	Veronica N. (5)	9,000
Lone Ranger (6)	6,500	Victoria (4)	2,500
Lucy Scola (5)	8,000	Villanova (1)	170,000
		Vincie N. (3)	24,000
Margaret Marie (3)	34,000	Virginia Ann (6)	13,000
Margie L. (5)	10,500		
Maria Immaculata (7)	21,500	We Three (2)	5,500
		White Owl (6)	6,500
		Wild Duck (1)	132,000

### Scallop Landings (Lbs.)

Cap'n Bill (1)	5,000
----------------	-------

## ROCKLAND

Araho (1)	45,000	Little Growler (1)	6,000
Calm (1)	120,000	Mabel Susan (1)	40,000
Crest (1)	100,000	Ocean (1)	120,000
Dorothy & Betty (1)	3,000	Squall (1)	320,000
Dorothy & Ethel (1)	8,000	Storm (1)	75,000
Drift (1)	190,000	Surf (1)	260,000
Ellin B. (1)	2,000	Tide (1)	225,000
Jeanne D'Arc (3)	95,000	Wave (1)	185,000

### Scallop Landings (Lbs.)

Pocahontas (2)	19,950
----------------	--------



**HEY...**  
**FISH DON'T TALK!**

True enough . . . *Fish* don't talk but Starr Netting speaks for itself every time the *big* catch is brought in. Experienced fishermen know it takes the best gear to do the best job. That's where extra quality Starr Netting speaks for itself — helps make successful fish stories *really* true.



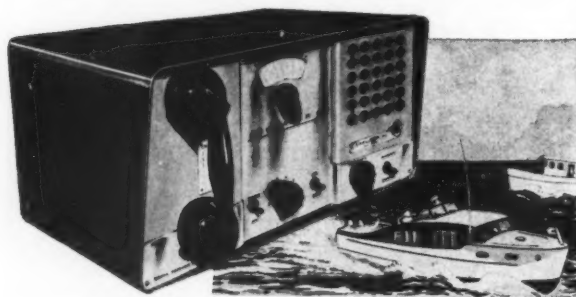
Starr Netting . . .  
Star Performance

**FOR OVER 60 YEARS**

Write for prices on cotton, linen and Nylon  
(made from Bonded Nylock Twine) netting.

**A. M. STARR NET CO.**  
**EAST HAMPTON . . . CONN.**

## Outstanding for '55



### CRUSADER II

## HUDSON AMERICAN MARINE RADIO TELEPHONES

- 8 Ship-to-Ship, Ship-to-Shore models—including 4 smartly designed, newly-improved sets for '55.
- 4, 6, 7 channel models—4 with a standard broadcast band for entertainment.
- Increased power for '55—choice of 15, 40, 50, 85, 105, 140 watt models.
- Compact, space-saving units—engineered for small, medium, large-size boats.

See your local dealer, or write for complete information



### HUDSON AMERICAN CORPORATION

A subsidiary of Claude Neon, Inc.

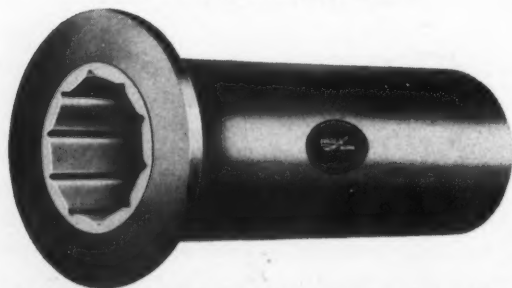
25 West 43rd Street, New York 36, N. Y.

Export Division: 100 East 42nd St. New York 17, N. Y.

## B.F. Goodrich

## Cutless Bearings

For Propeller Shafts



Soft rubber, water lubricated, Cutless bearings give years of trouble-free service on fishing vessels. Resist heat, oil, and wear. Quiet and protect shafts too. There is a size and type to fit your boat.

Available at Boat Repair Yards and Marine Equipment dealers.

**Lucian Q. Moffitt, Inc.**

AKRON 8, OHIO

Engineers and National Distributors

## STONINGTON, CONN.

Averio (1)	200	Irene & Walter (7)	5,200
Bette Ann (3)	1,200	Jane Dore (5)	3,500
Carl J. (7)	2,400	Little Chief (4)	2,100
Carol & Dennis (1)	1,400	Marise (8)	4,000
Carolyn & Gary (5)	3,500	Old Mystic (4)	26,000
Connie M. (4)	5,500	Rita (1)	200
Fairweather (1)	2,400	William B. (9)	12,600
Five Sisters (3)	12,100		

## BOSTON

Acme (1)	2,900	Mary & Joan (2)	153,200
Addie Mae (2)	6,500	Michael G. (1)	7,800
Agatha (3)	139,400	Michigan (2)	256,700
Agatha & Patricia (5)	92,700	Mother Frances (3)	50,800
Angie & Florence (4)	60,600		
Arlene (1)	3,500	Nancy B. (3)	96,300
Arlington (2)	197,500	Neptune (1)	123,800
Atlantic (2)	222,500	Notre Dame (3)	121,000
Ave Maria (1)	2,300	Nova Antonio (4)	11,400
Baby Rose (3)	204,000	Ocean Clipper (1)	55,600
Bay (2)	233,600	Ocean Wave (1)	74,400
Bonaventure (1)	79,000	Ohio (3)	204,200
Bonnie (2)	328,000	Olympia (4)	104,800
Bonnie Billow (1)	127,500	Olympia La Rosa (3)	65,200
Bonnie Breaker (2)	215,300		
Bonnie Breeze (2)	241,200	Pam Ann (2)	171,700
Brighton (2)	273,000	Patty Jean (2)	270,200
Buzz & Billy (2)	69,300	Phantom (2)	248,000
		Plymouth (2)	174,500
Cambridge (2)	296,100	Puritan (1)	68,100
Catherine B. (1)	4,300		
Dolphin (1)	44,200	Racer (2)	216,300
Elizabeth B. (2)	176,500	Raymonde (3)	159,000
Flying Cloud (3)	527,500	Red Jacket (3)	412,300
Four (2)	169,800	Roma (1)	10,100
4-C-688 (4)	17,100	Rosa B. (3)	330,500
4-H-823 (3)	22,400	Rosalie D. Morse (2)	207,800
		Rosemarie (1)	16,400
Geraldine & Phyllis (2)	106,900	Rose Mary (2)	33,000
		Rosie (5)	9,900
Hilda Garston (1)	72,500	Rush (2)	168,500
Holy Family (2)	116,500		
Ida & Joseph (1)	29,400	St. Anna (1)	9,500
Jane N. (2)	208,300	St. Joseph (1)	28,800
J. B. Junior (2)	242,900	St. Victoria (5)	141,700
Jennie & Lucia (1)	19,200	Santa Maria (4)	145,000
Josephine P. II (3)	69,500	Sherry & Scott (1)	18,200
		Sunlight (1)	77,400
Killarney (1)	60,800	Texas (1)	96,000
Leonard & Nancy (2)	87,900	Thomas D. (3)	130,800
Magellan (5)	121,600	Thomas Whalen (2)	221,500
Maine (1)	123,500	Triton (3)	346,900
Manuel F. Roderick (3)	154,000		
Maria Christina (2)	9,200	Vincie N. (1)	16,300
Mary & Jennie (1)	4,300	Weymouth (2)	165,000
		Wild Duck (1)	93,100
		Wm. J. O'Brien (2)	237,000
		Winchester (2)	262,300
		Wisconsin (2)	296,300

## WOODS HOLE

Cap'n Bill II (2)	31,500	Priscilla V. (2)	10,600
Eugene H. (2)	28,900	Southern Cross (2)	8,000
Madeline (2)	7,400		

### Scallop Landings (Lbs.)

Empress (1)	2,798	William H. Killigrew (1)	7,245
-------------	-------	--------------------------	-------

## SEATTLE

### Line Fishery

Dorothy II (1)	6,611	National (1)	3,000
Nanna (1)	7,500		

## Heavy Advance Registrations for National Fisheries Convention

Nearly 600 people have made advance registrations for the National Fisheries Institute's 10th annual convention, to be held at the Hotel Roosevelt in New Orleans, La., from April 24-27. This is by far the largest number of advance registrations ever received for any of the Fisheries Institute's annual meetings.

The Old Timers Club will hold its Stag Dinner at The International House in New Orleans on April 23. Arrangements also have been made to entertain the wives of Old Timers at dinner that same evening at the famous Court of Two Sisters in the French Quarter.



## Gloucester Favors Bill for Fish Pier Extension

Speaking at a public hearing on the bill to extend the Gloucester State Fish Pier, Sen. Philip A. Graham of Hamilton said that the fishing industry has undergone a big change with larger boats, going longer distances for their fares. He declared that these boats can't be accommodated at the present pier.

Mayor Benjamin A. Smith II told the joint committee on harbor and public land that longer vessels and bigger fishing fleets call for early extension of Gloucester's State Fish Pier.

A bill has been filed to provide for immediate construction of a pier extension to cost \$650,000, in addition to the bill calling for \$5000 for a survey of such an extension.

## Skipper Washed Overboard Is Saved

Capt. Frank Foote, owner and skipper of the 70-ft. dragger *Little Sam*, was washed overboard last month by a huge sea into icy waters, but is alive to tell the story. His crew, after almost a half hour, succeeded in getting a line around him and hoisted him aboard, unconscious. Included in the crew which rescued him were three sons.

## Anti-Seining Bill Killed

Gloucester fishermen will still be allowed to seine for pogies (menhaden) within a mile of shore between Gurnet Light and the Cape Cod Canal northern entrance. The State Legislature's joint committee on conservation unanimously voted on February 9 to kill the bill which called for prohibiting pogie seining in that area.

## Dragger Damaged by Heavy Seas

The dragger *Theresa M. Boudreau* arrived in port on February 15 showing evidence of her encounter with a heavy sea; one dory lost, another smashed, the after structure on the port side stove in, and iron gallows frames bent. The 103-ft. dragger in command of Capt. Joseph A. Boudreau had been fishing on Western Bank when she was caught in a blizzard.

## Oppose Lobster Length Bill

Local processors of lobsters were among opponents of a bill which would establish a maximum and a minimum lobster length limit. The measure was blasted by South Shore lobstermen who predicted that they would be forced to throw back 75 out of every 100 lobsters they trapped.

Proponents of the measure argued that the larger lobsters are of doubtful market value, while they are invariably seed-carriers, vital to maintaining the number of lobsters in local waters.

Principal among the opponents was James H. Patteson of Consolidated Lobster Co., who pointed out the fact that in his years with Consolidated, less than one half of one per cent of the seeders discovered in their tanks weighed over four pounds. Francis W. Sargent, director of the State Division of Marine Fisheries, also spoke in opposition.

## Capt. Peter O. Tysver

Capt. Peter O. Tysver, 74, retired master mariner who went fishing at the age of 14, died on February 22. Capt. Tysver, one of the best known local gill netters, retired about seven years ago. His last boat was the *Lois T.* Other boats he owned were the *Rough Ryder* and the *Enterprise*.

## Capt. Giochino Barbara

Capt. Giochino Barbara, 70, owner of the dragger *Lois T.*, now shrimp fishing out of Pascagoula, Miss., died suddenly at his home last month.

**WHICH  
V-BELT  
is best  
for you?**



If the correct size of endless V-Belt is not readily available, or if you have to tear down machinery to install, then the best belt to use is open-end V-Belting fastened with

### ALLIGATOR V-BELT FASTENERS

★ In this way you can make up V-Belts in *any length* to fit *any drive* the most economical way—V-Belts that perform exceptionally well.

★ In contrast to link-type belts these ALLIGATOR fastened V-Belts have just *one strong joint... stretch and follow-up maintenance are reduced to a minimum.*

### ALLIGATOR INTRODUCTORY V-BELT DRIVE UNITS

contain V-Belting, Fasteners and Tools—everything you need in one compact package to make up V-Belts quickly. Available in sizes A, B, C & D.

Ask for Bulletin V-215 and V-216  
Order From Your Distributor

**FLEXIBLE STEEL LACING COMPANY**  
4603 Lexington Street, Chicago 44, Illinois



DEPENDABLE  
STATIONARY & MARINE  
**HEAVY DUTY  
POWER**  
Diesel • Dual Fuel • Tri-Fuel • Spark Ignited Gas  
The switch is to Enterprise  
*Choice of Power Experts*  
**OVER A MILLION HORSEPOWER  
AT WORK THE WORLD OVER**  
Units from 73 to 6150 HP  
43 to 4400 KW  
**Enterprise  
Engines**  
DEPENDABLE  
Sales and Service in  
Principal Cities

## The CRUISE MASTER

An Ideal Compass for smaller boats

4" Spherical

Indirect Lighting

Built-in  
Compensator

Chrome Plated  
Base

Price \$39.00



For Larger Boats Get Our

## 6-inch FLOAT TYPE COMPASS

Quality Instruments You Can Depend On

Compasses - Course Protractors - Binnacles - Peloruses



Write for descriptive folder

**MARINE COMPASS  
COMPANY**

Pembroke, Massachusetts

**500  
Trawlers  
CAN'T  
be  
Wrong**

Last year, Diesel Engine Sales, Inc., of St. Augustine chose the name GOODWILL for the bow of their 500th shrimp trawler. And they chose a



**\*Columbian\***

for her stern, as they had for each of her 499 older sisters (and of course for all those that have come off their ways since) . . . We like the symbolism: GOODWILL forward, COLUMBIAN PROPELLERS aft—they do go together! Ask for our free Catalog, and learn some of the reasons why.

\*For the GOODWILL, a 5-BLADER, 48 x 44

**COLUMBIAN BRONZE CORPORATION**  
FREEPORT, L. I., N. Y.

## Provincetown Harbor Development Projects Being Considered

In addition to a master plan and report on overall development of Provincetown Harbor, engineers engaged for that purpose also have submitted a master plan and report on a secondary development of the area.

Estimated cost of the harbor development, including a stone breakwater to protect the wharves and harbor front from east, southeast and south winds, the dredging was set at \$1,340,000. No estimate has been made of the cost of the secondary development, which is concerned principally with the reclaimed land area of about 15 acres derived from depositing dredged material over the tidal flats along the foreshore.

Facilities in the layout would include three finger piers with end floats; a marine railway of capacity sufficient to accommodate the fishing vessels or pleasure craft in Provincetown; boat repair yard; workshop and other facilities to serve the boat repair yard; and a service station.

## New Fishing Boat

The 70-ft. dragger *Silver Mink*, newest addition to the Provincetown fishing fleet, has arrived in port from St. Augustine, Fla. where she was built. Capt. Manuel Phillips, skipper, and James Eteson, Orleans radioman, brought the craft up from the south. The vessel is being outfitted at Flyer's Boatyard.

The new craft will specialize in mink food fishing, operating out of Provincetown and landing in Barnstable. Balfour Bassett of Barnstable has one-fourth interest in the boat and Capt. Phillips three-fourths.

Capt. Phillips is turning over the command of his dragger *Cape Cod* to Emmanuel J. Souza. During the Summer the *Silver Mink* and *Cape Cod* will work together on mink food.

The *Silver Mink* is powered with a General Motors Diesel, and was designed for shrimping. An innovation for Provincetown will be the galley and pilot house on deck, with a fo'c's'le forward for sleeping quarters.

## Against Proposed Shellfish Bills

The Mass. Shellfish Officers Association announced recently that its members are opposed to Senate bills 199 and 207. If the Legislature should pass bill 199, any citizen of the Commonwealth would be able to buy a commercial license in their town and go commercial shellfishing in any town of the State.

Bill 207 is intended to give any resident of the State the privilege of holding a grant to raise shellfish anywhere in the tidal waters of the Commonwealth.

Also opposed to these bills are the Orleans Board of Selectmen and the Chatham Fishermen's Association.

## Round Cove Opened to Shellfishing

Harwich Selectmen have opened Round Cove at East Harwich for commercial fishing in deep water by the use of bull rake or tongs only. This opening is for the taking of quahogs and oysters on Monday, Tuesday and Wednesday of each week until further notice. Limit is two bushels a day for each commercial permit.

The estimated value of shellfish taken in Harwich waters in 1954 was set at \$20,050. Among categories were scallops, \$200; quahogs, \$4,100; oysters, \$10,200; and others, \$3,750. The report showed commercial permits issued totaled 37; non-resident, 57; and resident 304.

Residents of the town had the good fortune to have an abundance of clams last Fall from Allen Harbor, with another open area to follow soon at Wychmere Harbor.

Areas planted last year were Round Cove and the east side of Allen Harbor. Also planted were five concentrated areas of soft-shell clams in the Round Cove area.

It can be expected there will be plenty of shellfish this year, but the commercial fishermen will have to concentrate on quahogs in Pleasant Bay and oysters in Herring River.

## New J Fisher

Eugene  
Fish & W  
River. H  
ferred to  
carried o  
tion of m  
fisheries

## Landing

During  
in New  
pared wi  
producti  
pound d  
smaller  
whiting,  
Variet  
which ju  
Shad lan  
pounds,  
producti  
than in  
Landin  
ed to ne  
for the s  
due prin  
ters. An  
landings  
squid, w  
fish, cod

## Missi

## Oppo

Repre  
Biloxi  
bill wh  
fishing  
the pro  
bridge

It wa  
to Jack  
the legi  
food pa  
recomm

## New S

A ne  
by the  
phasis  
the lan  
activity

## Volu

It is  
have b  
ileges  
Feder  
indust  
radio  
and ot  
Tampa  
preven  
calls.

## New Jersey Has New Agent for Fisheries Statistics Program

Eugene A. LoVerde has been placed in charge of the Fish & Wildlife Service's fishery statistics office at Toms River. He replaces Russell Soulen who has been transferred to the central office in Washington, D. C. Activities carried on from the Toms River office include the collection of monthly fish and shellfish catch data and annual fisheries operating unit and catch statistics for the state.

### Landings for Year Show Small Drop

During 1954, commercial landings of fish and shellfish in New Jersey amounted to 402.8 million pounds, compared with 433.3 million during 1953. Reduced menhaden production accounted for 86 percent of the 30.5 million pound drop. Food fish and shellfish landed in much smaller quantity than in 1953 were fluke, scup, sea bass, whiting, and oysters.

Varieties with increased production included surf clams, which jumped nearly a million pounds to 6,828,900 lbs. Shad landings showed a large gain, having totalled 628,100 pounds, compared to only 82,300 lbs. in 1953. Butterfish production of 1,339,300 lbs. was nearly 100,000 lbs. heavier than in the previous year.

Landings of fish and shellfish during December amounted to nearly 2.8 million pounds, compared to 3.3 million for the same month in 1953. The 15 percent decrease was due primarily to lighter receipts of fluke, scup, and oysters. Among other food fish, decreases were apparent in landings of sea herring, sea bass, hard clams, scallops and squid, while increases were noted in the catch of butterfish, cod, red hake, whiting and surf clams.

## Mississippi Seafood Industry Opposes Boat Tax Bill

Representatives of commercial marine interests met in Biloxi last month to discuss preventing the passage of a bill which would place an ad valorem tax on commercial fishing boats. The group also decided to protest against the proposed closing of the Biloxi-Ocean Springs drawbridge to navigation between 4 and 6 p.m.

It was recommended that a delegation be formed to go to Jackson for a hearing if and when the bill comes before the legislature for passage. William Cruso, Sr., Biloxi seafood packer who presided at the meeting, agreed that the recommendation was a sound one.

### New Statistical Office at Biloxi

A new fishery statistical office has been opened recently by the Fish and Wildlife Service in Biloxi. Principal emphasis will be on the collection of daily information on the landings of shrimp. Charles R. Evans will handle this activity.

## Voluntary Monitoring of Radio Calls

It is reported that vessel owners in the Florida area have been plagued by the misuse of marine radio privileges by shrimp vessels in the Gulf. As a remedy the Federal Communications Commission has suggested the industry form local committees to monitor ship-to-ship radio calls. Such a committee has been set up in Tampa and others are planned in Fort Myers and Key West. The Tampa committee already has proven very effective in preventing the use of ship-to-ship radio for unnecessary calls.

# Lathrop

MYSTIC, CONN.

## 3 WAYS TO HELP YOU CHOOSE THE RIGHT ENGINE

• Talk to a Lathrop owner • Take the wheel of a Lathrop powered boat • Send for the illustrated Lathrop catalog • All three will demonstrate the famous dependability, low maintenance and long life features of Lathrop engines — since 1897.

### HIGH SPEED

Model	HP.	R.P.M.	Cyl.	Displ.
LH-4	45	2800	4	133
LH-Master	70	2500	4	214
LH-6	64	2200	6	282
LH-Atom	90	3000	6	282
LH-Atom	100	3000	6	282
Special	120	3000	6	320
LH-Deluxe	132	3000	6	339
LH-Super	145	3000	6	339

### DIESELS

Model	HP.	R.P.M.	Cyl.	Displ.
D-60	60	900	4	665
D-100	100	1000	6	998
DH-120	120	1100	6	998
DH-200	187	1600	6	935

### SLOW SPEED

Model	HP.	R.P.M.	Cyl.	Displ.
Engineers' 60	60	875	4	665
Engineers' 75	75	915	4	792
Engineers' 115	118	1000	6	1188
Standard 30	30	660	3	463
Standard 40	45	710	4	618

### MEDIUM SPEED

Model	HP.	R.P.M.	Cyl.	Displ.
Mystic 125	130	1800	6	585
Mystic 175	175	1535	6	1013

Write today for illustrated catalogs with complete and detailed information.

# MUSTAD

## Key Brand FISH HOOKS

Like old friends they wear well and can be depended upon at all times. Ask your fishing supplies dealer. Mustad Fish Hooks are made in Norway by



O. MUSTAD & SON

Established 1832

OSLO NORWAY


Sales Agents

Ed. W. Simon Co., Inc.  
320 Broadway, New York





**INSURED**  
with



**DANFORTH ANCHORS**

**YOUR BEST MARINE Insurance is a DANFORTH ANCHOR**

**THEY HOLD BEST...  
HANDLE EASIEST**

Write for free 16-page booklet  
"Anchors and Anchoring."

**DANFORTH® ANCHORS**

2137 Allston Way, Berkeley 4, Calif.

If You Didn't See the

**CAPCO-Matic**

at the Boat Shows, write us for full information.

This latest development in hydraulic shifting provides fingertip control for boats of 50 to 300 horsepower, gasoline or diesel. Due to the demand, orders should be placed at once to assure spring delivery.

Send for literature today!  
Marine Division (Dept. R)



CAPCO-Matic Hydraulic Gear Shifter  
Installation on demonstration unit

**CLEVELAND AERO PRODUCTS, INC.**  
113 St. Clair Avenue N. E. Cleveland 14, Ohio

**WALTER CLEAN-FLO KEEL COOLERS**  
*Don't Accept A Substitute*

**REAL FRESH WATER COOLING**

- NO CORROSION
- DIRT AND SAND-FREE ENGINE
- EASY TO INSTALL



Literature on request

**REDUCTION GEARS  
TRANSFER DRIVES  
V-DRIVES  
PROPELLER PULLERS**

- COMPLETE LINE OF MODELS AND SIZES

**G. WALTER MACHINE COMPANY**  
84 CAMBRIDGE AVENUE JERSEY CITY 7, N. J.

**NETS • RAKES • TONGS**

Bait Netting - Wire Baskets  
Rope - Lobster Pot Heading Twine - Corks

**LARGE STOCK**

*Prompt, intelligent, personal attention to your order*

**W. A. AUGUR, Inc.**

35 Fulton Street New York 38, N. Y.  
BEckman 3-0857

## Massachusetts Opposes Danger Zone Extension

A request from the commandant of the First Naval District for an enlargement of the existing danger zone and live target area in the vicinity of No Man's Land, to be used for bombing and rocket fire, has come under attack by Governor Herter's labor-management committee to promote the Massachusetts fishing industry.

Francis W. Sargent, chairman of the committee, disclosed that the area in question which lies south of Martha's Vineyard, is a prolific inshore fishing ground producing a variety of fish of importance to the Massachusetts fishing industry.

It was learned that if the Navy's request is granted, vessels would not be permitted to enter or remain in the area except by permission of the commandant. The committee urged that a public hearing be arranged at an early date so that the fishing industry may have an opportunity to protest this action.

## "Delaware" Exploring for Shrimp

The *Delaware* returned to East Boston on February 13, having completed a 10-day exploratory cruise in waters in the Gulf of Maine. This was the third cruise of a series designed to determine the present abundance of northern shrimp in waters which formerly supported a commercial fishery, in the winter months.

Ten tows were made in, or in close proximity to areas which supported a winter fishery in the middle and late 1940's. Nine tows were made between these areas, or in exploration of suitable bottoms.

Northern shrimp were not taken in commercial quantities in any tow. Greatest number was taken in 50 fathoms of water, off Wood Island, Me.

## Legislation to Regulate Weighing, Marketing

Gov. Herter's labor-management committee to promote the Massachusetts fishing industry recently completed and unanimously endorsed a draft of legislation which would authorize the Commissioner of the Dept. of Labor and Industries to promulgate rules and regulations governing the weighing and marketing of fish in all Massachusetts ports. The legislative proposal will be presented to Gov. Herter with the request that it be incorporated into a special message to the Legislature during the current session.

Francis W. Sargent, chairman of the Governor's committee, explained that this legislation would prevent long-standing malpractices in the principal Bay State fishing ports, particularly regarding fraudulent weighing and grading of various fish such as cod, haddock and other groundfish.

Howard S. Willard, director of the Division of Law En-

**BOWERS BATTERIES**

*Always Better*

BOWERS BATTERY & SPARK PLUG CO., READING, PA.

forcement  
sent to  
the nets  
Although  
conserva  
eral acti  
local tra

## Buys T

Gregory  
cently p  
the Ocea  
will sup

## Fisher

Student  
various  
of Mass  
partial  
would i  
enginee  
single c  
nomics.

## Conn

## Seeks

A pr  
and dr  
Sound  
Shell F  
ary 17

Dr. J  
a mem  
nothing  
had go

He s  
mission  
needs  
oyster  
and W

Also  
J. R. M  
private  
Bridge

## Weat

Bad  
catch  
lbs. of  
were l  
weather  
The  
lbs. b  
lighter  
to leav  
earlier  
years.

## Bill V

Plan  
struct  
a star  
the L  
Leagu  
plants  
Fish  
to a r  
it is s  
of the

forcement of the Mass. Dept. of Natural Resources, presented to the committee a draft of legislation to regulate the nets used by the whiting trawlers of Massachusetts. Although it was agreed that the legislation was a sound conservation measure, concern was expressed that unilateral action by Massachusetts might force a segment of the local trawler fleet to transfer to ports in other states.

## Buys Two Fishing Vessels

Gregory F. Sacca, Blue Sea Fish Co., Boston, has recently purchased two fishing vessels, the *Ocean Wave* and the *Ocean Clipper*. They will operate out of Boston, and will supply fish which the firm plans to put into blocks.

## Fisheries Course to Start at University

Students will be able to take a full collegiate course in various aspects of the fishing industry at the University of Massachusetts, Amherst, beginning in September. A partial list of the courses making up the curriculum would include at least three courses in biology, two in engineering (food processing and refrigeration) and single courses in conservation, oceanography and economics.

## Connecticut Shell Fish Commission Seeks Oyster Rehabilitation Funds

A proposed appropriation of \$1,500 for rehabilitation and dredging of an oyster spawning bed in Long Island Sound at West Haven was urged by the Connecticut State Shell Fish Commission at a hearing conducted on February 17 by the State Legislature's fish and game committee.

Dr. John S. Rankin, Jr. of the University of Conn. and a member of the Commission, said the State had done nothing in the conservation of oysters and the industry had gone downhill in the past few years.

He said young oysters are not available and the Commission had set up oyster beds in the sound and now needs the appropriation to dredge the beds to eliminate oyster predators. Eight oyster beds between Southport and West Haven have been established.

Also speaking for the proposed appropriation were J. R. Nelson, of F. Mansfield & Sons Co., New Haven, a private industry oyster planter, and William Ciaurro of Bridgeport, a natural growth oysterman.

## Weather Hampers Fishing Fleet

Bad-weather conditions resulted in a low market fish catch in Stonington during the past month. Only 82,500 lbs. of market fish were landed by Stonington boats which were kept idle for several days by a combination of cold weather, rain and fog.

The main source of supply was herring, with 353,000 lbs. brought in. However, even the herring catch was lighter than usual, and the herring already have started to leave waters in this area. One source said it was the earliest date the herring have disappeared in several years.

## Bill Would Ban Trash Plants

Plans of the Stonington Fishermen's Assoc. for construction of a trash plant at Stonington are apparently at a standstill. Late last month, a bill was introduced in the Legislature at the request of the Stonington Welfare League which would provide for banning of processing plants in Stonington.

Fishermen are reported willing to have the issue put to a referendum vote of Stonington borough voters, and it is said they will renew negotiations for establishment of the plant within a short time.

Ask any **OSCO** Owner!



**OSCO Marine® FORD Engines mean:**

- lower first cost
- standardized marine power
- immediate service anywhere

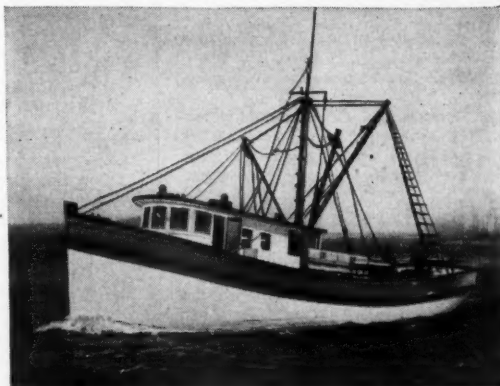
You don't have to go far to find an OSCO owner... and when you do, you'll find him more than satisfied. Fishermen, lobstermen, ferryman who must depend on their engines when they need them most, as well as legions of pleasure boat owners whose leisure time is valuable, buy and stick to OSCO Marine® Ford Engines. That's why marine garages around the world recommend and sell OSCO Engines and the famous CONVO® marine conversion parts, accessories, kits and reverse gears for the Ford line.

**Send today for free catalog!** **OSCO MOTORS CORP.**  
36-27 Lawrence St., North, Philadelphia 40, Pa.—Cable: Oscomotors

**GEERD N. HENDEL**  
NAVAL ARCHITECT

Designer of Fishing and Commercial Vessels of All Types  
Specializing in Aluminum Alloy Hull and Deckhouse Construction

**CAMDEN, MAINE** **TELEPHONE 3097**



## BUY THE BOAT Built by Master Builders

Designed on the principle that the better the hull the better the haul. Astonishing records for ruggedness and easy handling. Your choice of engine and equipment. Big tank capacities. Complete accessories. Terms, Delivery dates and particulars promptly available from:

**MOREHEAD CITY SHIPBUILDING CORP.**  
Telephone 6-4146 Morehead City, N. C.



**MOREHEAD CITY SHIPBUILDING CORP.**  
Morehead City, North Carolina

Gentlemen: Without obligation on my part tell me more about your Hatteras Trawlers and their special service features.

My Name \_\_\_\_\_

St. Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

# WHERE-TO-BUY DIRECTORY

Companies with asterisk have display advertisements in this issue; see Index to Advertisers for page numbers

## AIR STARTING MOTORS

Ingersoll-Rand, 11 Broadway, N. Y. 4, N. Y.

## ALARM SYSTEMS

Brown Alarm Mfg. Co., Inc., 1631 Filbert St., Baltimore 26, Md.

## ANCHORS

\*Danforth Anchors, 2121 Allston Way, Berkeley, Calif.

The Maxim Silencer Co., 126 Homestead Ave., Hartford 1, Conn.

\*Northill Co., Inc., Los Angeles 45, Calif.

## BATTERIES—Storage

\*Bowers Battery & Spark Plug Co., Reading, Pa.

Crescent Battery & Light Co., Inc., 819 Magazine St., New Orleans 12, La.

\*\*\*"Exide": Electric Storage Battery Co., 42 South 15th Street, Philadelphia 2, Pa.

\*Surrette Storage Battery Co., Salem, Mass.

Willard Storage Battery Co., 246 East 131 St., Cleveland 1, Ohio.

## BOOTS

\*United States Rubber Co., Rockefeller Center, New York, N. Y.

## CANS

Continental Can Co., 100 E. 42nd St., New York, N. Y.

## CLOTHING

\*The H. M. Sawyer & Son Co., Cambridge, Mass.

A. J. Tower Co., 24 Simmons St., Boston, Mass.

\*United States Rubber Co., Rockefeller Center, New York, N. Y.

## COLD STORAGE

Quaker City Cold Storage Co., Philadelphia, Pa.

## COMPASSES

John E. Hand & Sons Co., Atlantic & Washington Avenues, Haddonfield, N. J.

\*Marine Compass Co., Pembroke, Mass.

Sperry Gyroscope Co., Division of the Sperry Corp., Great Neck, N. Y.

\*Wilfrid O. White & Sons, Inc., 178 Atlantic Ave., Boston 10, Mass.

## CORDAGE

American Manufacturing Co., Noble and West Sts., Brooklyn, N. Y.

Cating Rope Works, Inc., Maspeth, N. Y.

\*Columbian Rope Co., Auburn, N. Y.

The Edwin H. Fittler Co., Philadelphia 24, Pa.

New Bedford Cordage Co., 131 Court St., New Bedford, Mass.

Plymouth Cordage Co., Plymouth, Mass.

Tubbs Cordage Co., San Francisco, Calif.

Wall Rope Works, Inc., 48 South St., New York 5, N. Y.

## COUPLINGS—Marine

Morse Chain Co., 7601 Central Ave., Detroit 10, Mich.

## DEPTH SOUNDERS

Bendix Aviation Corp., Pacific Div., 475 Fifth Ave., New York 17, N. Y.

\*Edo Corporation, College Point, L. I., N. Y.

Kaer Engineering Corp., Palo Alto, Calif.

Raytheon Manufacturing Co., 138 River St., Waltham 54, Mass.

\*Wilfrid O. White & Sons, Inc., 178 Atlantic Ave., Boston 10, Mass.

## DIRECTION FINDERS

Bludworth Marine, 92 Gold St., N.Y. 7, N.Y.

Kaer Engineering Corp., Palo Alto, Calif.

Raytheon Manufacturing Co., 138 River St., Waltham 54, Mass.

## ELECTRIC GENERATING PLANTS

D. W. Onan & Sons, Inc., University Ave., S. E. at 25th, Minneapolis 14, Minn.

## ENGINES—Diesel

Auto-Marine Engineers, Inc., 3464 N.W. North River Dr., Miami 12, Fla.

The Buda Co., 154th and Commercial Ave., Harvey, Ill.

\*Burmeister & Wain American Corp., 17 Battery Place, New York 4, N. Y.

Caterpillar Tractor Co., Peoria, Ill.

Cooper-Bessemer Corp., Mount Vernon, O.

Cummins Engine Co., Columbus, Ind.

\*Detroit Diesel Engine Div., General Motors Corp., Series 51, 71 and 110 Marine Diesels, 13400 W. Outer Drive, Detroit 28, Mich.

\*Enterprise Engine & Machinery Co., 18th and Florida Sts., San Francisco 10, Calif.

Fairbanks, Morse & Co., Chicago, Ill.

\*Gray Marine Motor Co., 646 Canton Ave., Detroit, Mich.

P&H Diesel Engine Division, Harnischfeger Corp., 500 S. Main Street, Crystal Lake, Illinois.

\*Kermath Manufacturing Co., 5890 Commonwealth Ave., Detroit 8, Mich.

\*The Lathrop Engine Co., Mystic, Conn.

Murphy Diesel Co., 5317 West Burnham St., Milwaukee, Wis.

\*The National Supply Co., Engine Division, Springfield, Ohio.

\*H. O. Penn Machinery Co., Inc., East River and 140th St., New York, N. Y.

\*Perkins-Milton Co., Inc., 376 Dorchester Ave., South Boston 27, Mass.

Red Wing Motor & Mfg. Co., Red Wing, Minn.

Scripps Motor Co., 255 Vinewood St., Detroit 16, Mich.

Wolverine Motors Works Inc., 1 Union Ave., Bridgeport, Conn.

## ENGINES—Gasoline

\*Chris-Craft, Marine Engine Div., Algonac, Mich.

\*Chrysler Corp., 12211 East Jefferson, Detroit, Mich.

\*Ford Marined Engines, 3627 N. Lawrence St., Philadelphia 40-AF, Penna.

\*Gray Marine Motor Co., 646 Canton Ave., Detroit, Mich.

\*Kermath Manufacturing Co., 5890 Commonwealth Ave., Detroit 8, Mich.

\*The Lathrop Engine Co., Mystic, Conn.

Red Wing Motor & Mfg. Co., Red Wing, Minn.

Scripps Motor Co., 255 Vinewood St., Detroit 16, Mich.

## ENGINES—Outboard

Evinrude Motors, 4760 N. 27 St., Milwaukee 16, Wis.

\*Johnson Motors, 6300 Pershing Rd., Waukegan, Ill.

## FISHING GEAR

\*The Harris Co., Portland, Me.

\*Westerbeke Fishing Gear Co., Inc., 279 Northern Ave., Boston, Mass.

## FLOATS

Dale Plastics Corp., 5736 12th St., Detroit 8, Mich.

J. H. Shepherd Son & Co., Elyria, Ohio.

\*B. F. Goodrich Sponge Products Division, Shelton, Conn.

## GENERATING SETS

The Buda Co., 154th and Commercial Ave., Harvey, Ill.

\*Detroit Diesel Engine Div., General Motors Corp., Series 51, 71 and 110 Marine Diesels, 13400 W. Outer Drive, Detroit 28, Mich.

Hallett Mfg. Co., 1601 West Florence Ave., Inglewood, Calif.

## GENERATORS

\*The Safety Car Heating & Lighting Co., Inc., Box 904, New Haven 4, Conn.

## HOOKS

\*O. Mustad & Son, Oslo, Norway.

\*"Pfueger": Enterprise Mfg. Co., 110 Union St., Akron, Ohio.

## INSULATION

"Styrofoam" (Expanded Dow Polystyrene): The Dow Chemical Co., Midland, Mich.

## LORAN

\*Radiomarine Corp. of America, 75 Varick St., New York 13, N. Y.

Sperry Gyroscope Co., Division of the Sperry Corp., Great Neck, N. Y.

## MOTOR GENERATORS

\*The Safety Car Heating & Lighting Co., Inc., Marine Div., P.O. Box 904, New Haven 4, Conn.

## NETS

Adams Net & Twine Division, The Linen Thread Co., Inc., 701 N. 2nd St., St. Louis, Mo.

\*W. A. Augur, Inc., 35 Fulton St., New York.

Ederer Division, The Linen Thread Co., Inc., 540 Orleans St., Chicago, Ill.

The Fish Net & Twine Company, 310-312 Bergen Ave., Jersey City, N. J.

The Linen Thread Co., Inc., 105 Maplewood Ave., Gloucester, Mass.

Moodus Net & Twine, Inc., Moodus, Conn.

Joseph F. Shea, Inc., East Haddam, Conn.

\*A. M. Starr Net Co., 10 Summit Street, East Hampton, Conn.

## OIL—Lubricating

Esso Standard Oil Co., 15 West 51st St., New York 19, N. Y.

\*Gulf Oil Corp., Gulf Bldg., Pittsburgh, Pa.

Shell Oil Co., 50 West 50th St., New York 20, N. Y.

Socony-Vacuum Oil Co., Inc., Marine Sales Dept., 26 Broadway, New York 4, N. Y.

\*Standard Oil Co. of California, Standard Oil Bldg., San Francisco, Calif.

## PAINTS

The Federal Paint Co., Inc., 33 Rector St., New York 6, N. Y.

Henderson & Johnson, Inc., Gloucester, Mass.

\*International Paint Co., Inc., 21 West St., New York, N. Y.

George Kirby Jr. Paint Co., 14 Wall St., New Bedford, Mass.

Pettit Paint Co., Belleville, N. J.

Pittsburgh Plate Glass Co., Pittsburgh, Pa.

Tarr & Wonslow Ltd., Gloucester, Mass.

\*C. A. Woolsey Paint & Color Co., Inc., 229 East 42nd St., New York 17, N. Y.

## PROPELLERS

\*Columbian Bronze Corp., Freeport, N. Y.

Federal Propellers, Grand Rapids, Mich.

\*Hyde Windlass Co., Bath, Maine.

\*Michigan Wheel Co., Grand Rapids, Mich.

## PROPELLER SHAFTS

\*The American Brass Co., Waterbury 20, Conn.

## PUMPS

Jabco Pump Co., 2031 N. Lincoln St., Burbank, Calif.

## RADAR

\*Radiomarine Corp. of America, 75 Varick St., New York 13, N. Y.

Raytheon Mfg. Co., 138 River St., Waltham 54, Mass.

## RADIO TELEPHONES

Applied Electronics Co., Inc., 1246 Folsom St., San Francisco, Calif.



Bludworth Marine, 92 Gold St., New York 38, N. Y.

\*Hudson American Corp., 25 West 43rd St., New York 18, N. Y.

Kaar Engineering Corp., Palo Alto, Calif.

\*Radiomarine Corp. of America, 75 Varick St., New York 13, N. Y.

Raytheon Mfg. Co., 138 River St., Waltham 54, Mass.

#### RANGES—Golley

Elisha Webb & Son Co., 135 So. Front St., Philadelphia 6, Pa.

The Marine Mfg. & Supply Co., 34 New Street, New Brunswick, N. J.

#### REDUCTION GEARS

Snow-Nabstedt Gear Corp., Welton St. Hamden, Conn.

Twin Disc Clutch Co., 1341 Racine St., Racine, Wis.

\*G. Walter Machine Co., 84 Cambridge Ave., Jersey City 7, N. J.

#### REVERSE GEAR SHIFTER

\*Cleveland Aero Products, Inc., 113 St. Clair Ave., N.E., Cleveland 14, Ohio.

#### RUST PREVENTIVE

\*Sudbury Laboratory, Box 780, South Sudbury, Mass.

#### SEAM COMPOUNDS

L. W. Ferdinand & Co., Inc., Mica Lane, Newton Lower Falls 62, Mass.

#### SEARCHLIGHTS

Portable Light Co., Inc., 216 William St., New York 7, N. Y.

#### SHIPBUILDERS

Blount Marine Corp., Warren, Rhode Island.

Conrad Industries, Morgan City, La.

Diesel Engine Sales Co., St. Augustine, Fla.

Harvey F. Gamage, So. Bristol, Maine.

\*Morehead City Shipbuilding Corp., Morehead City, N. C.

\*Frank L. Sample & Son, Inc., Boothbay Harbor, Me.

#### SILENCERS

The Maxim Silencer Co., 126 Homestead Ave., Hartford 1, Conn.

#### STEERING GEAR

The Edson Corp., 141 Front St., New Bedford, Mass.

Metal Marine Pilot, 342 Golden Gate Ave., Tacoma, Wash.

Sperry Gyroscope Co., Division of the Sperry Corp., Great Neck, N. Y.

#### STERN BEARINGS

\*"Goodrich Cutless": Lucian Q. Moffitt, Inc., Akron 8, Ohio.

Hathaway Machinery Co., Inc., New Bedford, Mass.

Byron Jackson Co., PB Division, Box 2593, Terminal Annex, Los Angeles 54, Calif.

#### VALVES

Fabri-Valve Co. of America, 2100 No. Albina Ave., Portland 12, Ore.

#### V-BELTS

\*Flexible Steel Lacing Co., 4683 Lexington St., Chicago 44, Ill.

#### VOLTAGE REGULATORS

\*The Safety Car Heating & Lighting Co., Inc., Box 904, New Haven 4, Conn.

#### WINCHES

Bodine & Dill (formerly Hettinger Engine Co.), Bridgeton, N. J.

Hathaway Machinery Co., Inc., New Bedford, Mass.

New England Trawler Equipment Co., 300 Eastern Ave., Chelsea 50, Mass.

Stroudsburg Engine Works, 62 North 3rd St., Stroudsburg, Penn.

#### WIRE ROPE

American Steel & Wire Division, United States Steel, Rockefeller Bldg., 614 Superior Ave., Cleveland 13, Ohio.

\*John A. Roebbing's Sons Co., Trenton 2, N. J.

Wickwire Spencer Steel Division of The Colorado Fuel & Iron Corp., Palmer, Mass.

## FOREIGN BAILINGS

### LARGE-MESHED HADDOCK NET

now being used off New England coast may be adopted by Canada for use in northern waters. The 4½-inch haddock mesh has been fished off New England for two years under provisions of international treaty. Now, the Canadians are thinking about putting in the regulation for fishing grounds in Gulf of St. Lawrence and off Nova Scotian coast.

### RUSSIA'S HERRING FLEETS

in North Atlantic during 1954 included 28 motherships and 270 fishing boats. Vessels had latest type of equipment, and with aid of new techniques and previous experience had expected to make increased catch. Up to December 25, 1954, landings totaled 155,100 metric tons, as compared with 110,000 tons on same date year earlier.

### OCEANOGRAPHIC SURVEY

in North Pacific will be made by Governments of Canada, Japan and United States in 1955. Basic purpose of survey is a study of ocean currents, but collateral studies will be made of radioactivity, migration of fish and meteorological conditions.

### ECUADORAN GOVERNMENT

recently has awarded concessions to two fishing companies owned by United States interests but organized under Ecuadorian law. Pesca Ecuatoriana Santaelenense C. A. has been authorized to fish in Ecuadorian waters without restriction as to species, and to process and export such fish. Products del Pacifico Ecuatoriano S. A. is permitted to fish for shrimp in Ecuadorian waters and to process and export the shrimp.

Pacifico is permitted 20 fishing vessels and four launches, whereas Pesca is allowed a mothership refrigeration boat and 15 fishing vessels. Pesca is required to set up a cold-storage warehouse, freezing plant, and cannery, each within specified period of time.

### TERRITORIAL WATERS

dispute between Spain and Portugal continues to result in difficulties. Portuguese authorities have detained and confiscated catches of Spanish sardine vessels operating out of Galician ports, and also have fined the owners.

### VENEZUELAN FISH CANNERS

have sent samples of their products to Africa, Germany, and Trinidad, with the expectation of developing sales in those places, according to President of Venezuelan Fish Canners' Association. He said stocks of unsold canned fish in Venezuela continue to increase, but is optimistic that the problem will be solved with help of Foreign Office.

## Index to Advertisers

The American Brass Co.	37
W. A. Augur, Inc.	50
Bowers Battery & Spark Plug Co.	50
Burmeister & Wain American Corp.	35
Chris-Craft, Marine Engine Div.	39
Chrysler Corp., Marine Engine Div.	55
Cleveland Aero Products, Inc.	50
Columbian Bronze Corp.	48
Columbian Rope Co.	1
Danforth Anchors	50
Wm. J. Deed	54
Detroit Diesel Engine Div., General Motors Corp.	6
Diesel Corp. of N. J.	54
The Dow Chemical Co.	14
Edo Corporation	33
Eldredge-McInnis, Inc.	54
Electric Storage Battery Co.	7
Enterprise Engine & Machinery Co.	47
The Enterprise Mfg. Co.	41
Flexible Steel Lacing Co.	47
General Motors Corp., Detroit Diesel Engine Div.	6
Gray Marine Motor Co.	32
Gulf Oil Corp.	12
The Harris Co.	54
Geerd N. Hendel	51
Hudson American Corp.	46
Hyde Windlass Co.	41
International Paint Co., Inc.	36
Johnson Motors	4
Kermath Mfg. Co.	42
The Lathrop Engine Co.	49
Marine Compass Co.	48
Wm. M. McClain, Inc.	54
Michigan Wheel Co.	31
Lucian Q. Moffitt, Inc.	46
Morehead City Shipbuilding Corp.	51
O. Mustad & Son	49
The National Supply Co.	10
Northhill Co., Inc.	41
Oscro Motors Corp.	51
H. O. Penn Machinery Co., Inc.	8
Perkins-Milton Co., Inc.	8
Radiomarine Corp. of America	43
John A. Roebbing's Sons Co.	44
The Safety Car Heating & Lighting Co., Inc.	2
Frank L. Sample & Son, Inc.	54
The H. M. Sawyer & Son Co.	38
Sponge Products Div., B. F. Goodrich Co.	3
Standard Oil of California	56
A. M. Starr Net Co.	45
Sudbury Laboratory	31
Surette Storage Battery Co.	13
U. S. Rubber Co.	34
G. Walter Machine Co.	50
Westerbeke Fishing Gear Co.	54
Wilfrid O. White & Sons, Inc.	54
C. A. Woolsey Paint & Color Co.	11

## COMPLETE REPAIR FACILITIES

OUR ALL-AROUND SERVICE includes all types of engine overhauling and repairs, rigging service, hull repairs and alterations, electrical work, etc.

YOUR ENTIRE JOB can be done quickly in our yard by experienced men.

FRANK L. **SAMPLE & SON, INC.**

*Shipbuilders*

BOOTHBAY HARBOR, MAINE



**ATTENTION!**  
**G. M. DIESEL OWNERS**

*New Surplus in  
Large Quantities*

**DIESEL CORP. OF N. J.**

Large selection of engines and parts, starters, generators, pumps, all types; voltage regulators, filters, all types; reduction gears, all types.

6-71 MARINE \$ **1450** and up  
ENGINES — **Humbolt 2-7881**

79 Ogden St., Newark, N. J.

## THE HARRIS COMPANY

PORTLAND, MAINE

*Specializing in Fishing Boat Supplies*

**Marine Hardware — Dragging Equipment  
Electronics — Fuel — Groceries**

WILLIAM J.

**DEED**

NAVAL ARCHITECT

**FISHING VESSEL DESIGNS**

P.O. Box 813

Perth Amboy, N. J.

Commission Merchants and Wholesale Dealers in

**ALL TYPES OF FROZEN SEAFOOD**

**WM. M. McCLAIN, INC.**

231 S. FRONT ST. PHILADELPHIA, PA. 230 S. WATER ST.

## ELDREDGE-McINNIS, INC.

NAVAL ARCHITECTS MARINE ENGINEERS

*Specializing in Fishing Vessel Design*

131 State St., Boston 9, Mass.

Walter J. McInnis

Alan J. McInnis

## BE SAFE and SOUND WITH A **WHITE ECHO SOUNDER**

**Only \$169.75**

FOR 6V, 12V, OR  
32V OPERATION

Write for Circular

**WILFRID O. WHITE  
& SONS, INC.**

(formerly Kelvin-White Company)

178 ATLANTIC AVE., BOSTON 10, MASS.  
406 Water St., Baltimore 2, Md. 40 Water St., New York 4, N. Y.  
EXPORT DEPT.: 100 E. 42nd St., New York 17, Cable-PHILYORK



## CLASSIFIED ADVERTISING

Rates: \$1.00 per line, \$5.00 minimum charge. Count 9 words to a line. Closing date, 25th of month. National Fisherman, Goffstown, N. H.

### FOR SALE

Cruisers, draggers, auxiliaries—all types and sizes. If you are in the market for anything in that line, please write us—no inquiry too small to merit attention. KNOX MARINE EXCHANGE, INC., CAMDEN, MAINE.

### ENGINES FOR SALE

Fully rebuilt 90 hp. and guaranteed gasoline marine engines, \$495.00. Write for bargain list. Osco Motors Corp., Philadelphia 40-AF, Penna.

### GOVERNMENT SURPLUS BULLETIN

Save, buy direct from U. S. Government. Surplus boats, engines, tools, machinery, trucks, jeeps, etc. Send \$1.00 for Government Surplus Bulletin to Box 169 AP, East Hartford 8, Conn.

### OYSTER BOAT FOR SALE

Oyster dredge boat Klondike, 55' x 17.5' Dpt. 5.8'; capacity 1000 bushels. Excellent condition. Beacon Oyster Co., Wickford, Rhode Island.

### NEW CHRYSLER STARTERS FOR SALE

New Chrysler starters suitable for the M-8, made by the Autolite Company, model No. MAX-4023. Can be used on M-7 too, for 6 volt operation. \$12.50 each while they last. Write us for parts for all engines. \$400,000 stock on hand of surplus parts. Benjamin & Jay Corp., 3618 N. W. North River Dr., Miami 42, Fla.

### DRAGGER "PANDION" FOR SALE

Dragger Pandion, 52 x 14½ x 7½, new 1954. Fished five months. 844 Buda, Loran, telephone, Fathometer, D. F., Hathaway winch, 550 fathoms ¾ wire, capacity 40,000 whiting, State measured 32 h. herring. Pilot house, engine room forward, 4 bunks. Write John A. Anderson, 210 Talbot Ave., Rockland, Me.

### BOATS FOR SALE

Two 16 ft. outboard motor boats. One 25 ft. inboard motor boat (new). One 54 ft. Cat powered dragger, 7 years old. One 65 ft. G.M. powered dragger, 1 year old. Two bronze shafts, 10 ft. length. For complete information contact Elmer Closson, owner, 14 Washington St., Ellsworth, Maine.

## WESTERBEKE FISHING GEAR CO., INC.

*Grimsby Trawls  
Wesco Cod-end Protectors  
Wire and Manila ropes*

— *Distributors* —  
**Boston 10, Mass.**  
Also store and warehouse Gloucester, Mass.

*Marine Hardware  
Danforth Anchors  
Paints — Fittings*



**THE WHITICAR FLEET**—all seven units, making a pretty picture as they pause in the creek near Whiticar Boat Basin at Stuart, Florida. From left to right, they are: *Northwester*, 42½ ft. Tank-Sabrich-built boat; 38 ft. Whiticar-built *Gannet*; *Hobo*, 38 footer, Whiticar-built; *Skipper*, 38 ft. Matthews boat;

42 ft. *Captain Add* built by Webber Boats; *Gulf Stream*, 34 footer, Whiticar-built, and *Howdee*, 34 footer built by West End Boat Company. Chrysler Marine Engines (Imperial V Specials, Crowns and Royals) power the entire fleet and have logged a combined total of nearly 430,000 sea miles.

# Chrysler Power Scores Big

## with big game sport fishers!

Climb aboard one of the boats of the Whiticar Fleet and, chances are, you'll soon have a sailfish or marlin gracing your library wall. Picturesque names—*Hobo*, *Northwester*, *Gannet*, *Skipper*, *Gulf Stream*, *Howdee* and *Captain Add* identify the seven boats of this well-known Stuart, Florida fleet. The Whiticar Fleet offers sportsmen strongly-constructed boats, good up-to-the-minute equipment and—to compete with the fastest and trickiest denizen of the deep—each boat is Chrysler Powered.

Captain G. C. Whiticar, operator of the Whiticar Boat Basin, writes: "Our business in Florida and the Bahamas

is year 'round, with *Gannet* summering off the North Carolina coast. On that kind of schedule we can't afford engines that require a lot of babying. We've standardized on Chrysler Marine Engines because they can be counted upon for top performance under all conditions."

Your Chrysler Marine Engine Dealer will be glad to discuss your requirements and recommend a Chrysler Marine Engine, 95 to 200 h.p., to fit your hull. Ask him for 1955 catalog, or write: **Dept. 123, Marine Engine Division, Chrysler Corporation, Trenton, Michigan.**



**HOBO'S SKIPPER**—Captain Jack Whiticar (right), shows his father A. A. Whiticar (center), founder of the Whiticar Fleet, and his brothers G. C. Whiticar (left, kneeling) and A. J. Whiticar (left), some features of his new 200 h.p. Chrysler Imperial V Engine. Twin Imperials power *Hobo* through 2 to 1 reduction gears.



**GANNET AFTER SOME BIG ONES**—with outriggers skipping bait and a fishing party aboard. Boats are equipped with 2-way radio-telephone, swivel fishing chairs and every other type of big game fishing equipment. Runs like these require engines that will idle for hours without fouling, engines that will respond in an instant to a nudge of the throttle.



**DAY'S END**—finds fishing parties sorting their catch, crews getting set for the next day. Charter boats like these encounter all kinds of weather, often have to cross the Gulf Stream in heavy seas. Captain G. C. Whiticar says that Chrysler Engines were selected for their consistently better performance and easy availability of parts and service.

*America's No. 1 Marine Engine*

# CHRYSLER

MARINE ENGINE DIVISION • CHRYSLER CORPORATION

*Free*

Protect your valuable boating papers—send for free, waterproof Chrysler Poly Pouch. To get yours, simply fill in, clip out and mail coupon today.

Dept. 123, Marine Engine Division  
Chrysler Corporation  
Trenton, Michigan

Please send me free Chrysler Poly Pouch.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_

State \_\_\_\_\_

**CHRYSLER 200 H. P.  
IMPERIAL V SPECIAL  
ENGINE**

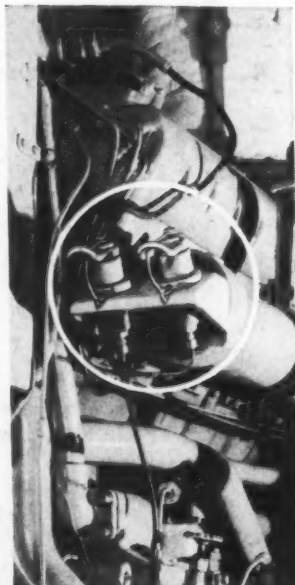




# Standard Engineer's Report

CASE HISTORY  
*Chevron Pressure Primer System*  
 PRODUCT  
*U.S.S. Endurance*  
 INSTALLATION

## Aluminum diesels use primer system for fast starts



CHEVRON PRESSURE PRIMER SYSTEMS are installed on all 6 Packard aluminum-alloy V-12 diesels in the Navy's new anti-magnetic mine-sweeper, the U.S.S. Endurance. Each primer system includes a discharger (two are circled, above) which releases Chevron Priming Fuel from a pressurized bulb. Under 250 pounds pressure, the fuel sprays through an atomizing nozzle into the intake manifold.

DEVELOPED FOR THE ARMED FORCES, the Chevron Pressure Primer System alleviates hard-starting troubles on all diesel and gasoline engines. Chevron Priming Fuel is so effective it has started big diesels in less than 10 seconds at 50 below zero, gasoline engines at 65 below! The steel bulbs and enclosed system give complete safety of handling and storage.

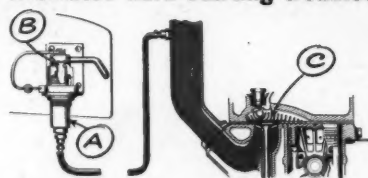
FREE FOLDER tells you more about Chevron Pressure Primer System and how to install it on different engines. Write or ask for it today.

FOR MORE INFORMATION about this or other petroleum products of any kind, or the name of your distributor, write or call any of the companies listed below.



TRADEMARK "CHEVRON" REG. U. S. PAT. OFF.

### How the Chevron Pressure Primer System alleviates hard-starting troubles



- Simple, rugged, safe discharger prevents fuel leakage; can be mounted on instrument panel for one-man starting.
- Small, strong steel bulbs protect fuel from water and dirt; when discharged, fuel injected under pressure results in fine spray and immediate starts.
- Volatile Chevron Priming Fuel atomizes in the induction system at temperatures as low as -65 F. Pressure or weakest spark fires mixture, starts engine. Engines can be started with low compression pressures and weak ignition.

STANDARD OIL COMPANY OF CALIFORNIA  
 225 Bush Street • San Francisco 20, California

THE CALIFORNIA COMPANY  
 P. O. Box 780 • Denver 1, Colorado

STANDARD OIL COMPANY OF TEXAS  
 P. O. Box 862 • El Paso, Texas

